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Worldwide Report

ENVIRONMENTAL QUALITY

No. 396

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9 May 1983

**WORLDWIDE REPORT
ENVIRONMENTAL QUALITY**

No. 396

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POLITICS OF ENVIRONMENT: LABOR PARTY OFFERS PROTECTION

Barrier Reef Plan

Canberra THE AUSTRALIAN in English 10 Feb 83 p 4]

[Article by Wio Joustra]

[Text]

A LABOR government would declare the entire Great Barrier Reef a national marine park immediately on assuming office.

The Opposition spokesman for environment and conservation, Mr Barry Jones, pledged this yesterday, saying Labor would ensure Australia's greatest assets were kept forever, not only for Australians but for the world.

"We cannot take the risk that the Reef will be handed over to the Queensland Premier, Mr Bjelke-Petersen, and his cronies to be turned into a charnel house of dead fish, dying coral and oil slicks," Mr Jones said.

He said that in 1975 the then Labor government passed the Great Barrier Reef Marine Park Act and intended the entire region would be proclaimed a national marine park.

"After seven years of procrastination, this Government

has proclaimed a mere 14 per cent of the area as marine park," Mr Jones said.

The Queensland Government has aided and abetted this unconscionable delay. It is clear it cannot be trusted to protect the Barrier Reef as part of Australia's natural heritage."

Like the Kakadu National Park and the Tasmanian south-west, the Reef was at risk from people who thought its value could be measured in money terms.

Mr Jones said: "The Great Barrier Reef Authority has been told to examine some offshore areas so the Federal Government can make a quick declaration of the Whitsunday and Townsville sections of the Reef."

"The Prime Minister hopes that if he makes a quick declaration of more of the Reef, this might take some of the heat off the Tasmanian dams issue."

Franklin Dam Issue

Canberra THE AUSTRALIAN in English 15 Feb 83 p 2

[Article by John Moses]

[Text] DESPITE the wide publicity given to protesters and their plans to campaign in marginal seats, the Franklin dam does not appear to be as prominent an election issue as might have been expected, according to a poll specially commissioned by The Australian.

The dam issue, according to the poll, will influence the vote of 14 per cent of the national electorate. But for 84 per cent, it will have no influence on the way they vote, and 3 per cent are undecided.

The figures reinforce the results of a poll, published in *The Australian* yesterday, which placed the dam controversy behind unemployment, inflation, the wage pause, the personality of the leaders, taxation and industrial relations as a major issue.

These figures showed 46 per cent of the electorate felt unemployment was the main election issue, compared with 2 per cent whose greatest concern was the Franklin dam.

When asked to rate the importance of election issues on a scale of one to 10, voters gave the Franklin dam 5.1 points and unemployment 3.7.

In Tasmania however, specific figures on the Franklin dam controversy show 46 per cent of voters there say the issue will influence their vote.

while 54 per cent say it will not.

The poll was taken by telephone by Spectrum Research on Wednesday and Thursday last week and sampled 1866 voters in the mainland capital cities, Tasmania, and all mainland country areas except the Northern Territory.

The question on the Franklin dam was one of several seeking to define the major issues of the campaign.

In response to the question: Is there a particular issue that will affect the way you personally will vote? - 67 per cent of the voters polled said no and 29 per cent yes. Four per cent were undecided.

Of intending Liberal-National Party voters, 73 per cent said there was no particular issue which would affect them, while 24 per cent said there was. Among those who will vote for the ALP, 64 per cent said there was no particular issue on which to vote, while 33 per cent had an issue in mind.

How the dam will influence the vote

Will the Tasmanian dam issue influence the way in which you personally vote?

| | Total | Intending Lib/NP voters | Intending ALP voters | Tasmania |
|------------|-------|----------------------------|-------------------------|----------|
| | % | % | % | % |
| Yes | 14 | 8 | 19 | 46 |
| No | 84 | 92 | 78 | 54 |
| Don't know | 3 | 1 | 3 | - |

How will it influence?
(Percentage of all respondents saying "Yes", it will influence their vote.)

| | % |
|----------------------------------|----|
| Support party against dam | 61 |
| Vote ALP as they are against dam | 12 |
| Support party who loves dam | 7 |
| Vote for dam vote Liberal | - |

THIS telephone survey was conducted on behalf of *The Australian* by Spectrum Research (NSW) on the night of Wednesday, February 9 (Wednesday and Thursday night in country NSW, SA and Queensland). Being a telephone survey, it is representative of only those people living in homes with telephones. The sample size was 1866 with telephone numbers selected at random from all areas of Australia, excluding the Northern Territory.

'AGE' Editorial

Melbourne THE AGE in English 15 Feb 83 p 13

[Editorial]

[Text]

THE Prime Minister's attempt to persuade the Tasmanian Government to set aside its plans to drown the Franklin River has failed. If there were any lingering hopes that the Tasmanian Liberals might be prepared to compromise, a Tasmanian Cabinet report released last week ended them. The report asserts that the Commonwealth would have to pay Tasmania \$2500 million to compensate it for the cost of leaving the south-west wilderness undisturbed for future generations. This is the State Liberal Government's response to Mr Fraser's challenge for it to come up with an acceptable alternative to his offer of \$500 million for a coal-fired station.

The most striking thing about this preposterous sum is the assumptions on which it is calculated. The \$2500 million is cited as not merely the value of the Gordon-below-Franklin dam. It also includes the value of five additional dams the Tasmanian Government plans to build on the south-west rivers, of intended logging of the mountain forests, and of potential mines throughout the area. Far from the Gordon-below-Franklin being an isolated project in an otherwise untouched wilderness, the report indicates that the State Government intends to exploit the south-west for whatever it can get out of it — hydro-electricity, logging, mining, the lot.

Nothing illustrates this better than the fate awaiting the Franklin. The dam's supporters have argued that the HEC plans to flood only the lower reaches of the river, leaving the admitted beauty of the mountain gorges untouched. That argument is now exposed as a fallacy. The Cabinet report assumes that five dams and hydro power stations will be built in the Franklin River area. The dam now proposed would be merely the first of a series all the way from the river mouth, through the magnificent gorges, reaching even to the headwaters. The Franklin, recognised all over as Australia's most beautiful river, would be turned into a series of hydro storage lakes.

Mr Fraser's efforts to compromise have reached a dead end. The Tasmanian Liberals

plainly see nothing in the south-west wilderness but potential dollars. If the Commonwealth refuses to stop them, within a generation or two, a land of magnificent unspoiled grandeur will have been reduced to a region of quarries, plantations, power stations and storage lakes. Australians care about their natural heritage, and they want a Commonwealth Government that shares their concern and will take the tough decisions needed to preserve it. At the coming election this will be only one issue among many. But it is an issue on which the differences between the parties are clear-cut. The only hope for saving the Franklin now is the election of a Labor Government.

One must sympathise with the Prime Minister; he wants to save the river, he has tried to find a compromise. But is naturally fearful of offending his Liberal allies. But politics is a tough game, and on the Franklin the stakes are too high to excuse his decision not to intervene. Mr Fraser has never explained why he was prepared to override the States rights arguments to save Fraser Island, but is not prepared to do so now to save the Franklin. The Commonwealth certainly has the power to halt the project indirectly, by refusing permission for foreign loans and the import of machinery. It probably also has the power to directly order a halt to the project, as Labor proposes. Mr Fraser is not prepared to intervene; Mr Hawke is. It is not an issue that should decide the election. But it is one the electors should bear in mind, among others, when they make their choice.

CSO: 5000/7559

DUST STORMS BRING SOIL EROSION; FUTURE PROSPECTS POOR

Call for Funds

Canberra THE AUSTRALIAN in English 10 Feb 83 p 3

[Text] THE dust storm that hit Melbourne on Tuesday highlighted the urgent need for a federally-funded soil conservation program, the NSW Minister for Agriculture and Fisheries, Mr Hallam, said yesterday.

The dust storm was similar to those that hit Sydney in the early 1940s when the State's topsoil was blown as far away as New Zealand, he said.

"Soil erosion is our greatest natural disaster and has been worsened by the current drought now about to enter its fifth year in NSW and Victoria," Mr Hallam said.

"At Monday's Australian Agricultural Council in Sydney, agriculture ministers

from all States were unanimous that the need for a Commonwealth-funded soil conservation program was the most urgently needed project in Australia."

Few people living in cities realised that wind and soil erosion was destroying topsoil, or what effect this was having on primary industry.

During the Federal Government's 1980 election campaign, both the Prime Minister and the Deputy Prime Minister had promised funds for a soil conservation program.

"However, soon afterwards the Government's Razor Gang moved in and chopped all funds that were promised," Mr Hallam said.

"The Prime Minister, in May last year, then announced that all soil conservation measures would be the responsibility of the States.

"People in metropolitan Melbourne have now had the unfortunate experience of realising how wrong the Fraser Government's decision was.

"But it must at least have brought the message home to city-based conservationists."

The executive director of the Cattlemen's Union, Mr Rick Parley, also warned yesterday that such dust storms could become common as a result of the drought.

Extent of Damage

Melbourne THE AGE in English 10 Feb 83 p 6

[Article by Roy Eccleston]

[Text] Melbourne can expect more dust storms this summer, like the one that blotted out the city on Tuesday, according to the State Government's Soil Conservation Authority.

The authority chairman, Mr Alex Mitchell said yesterday: "The drought has created a situation where, given similar weather conditions, a repeat of yesterday's storm is inevitable."

The storm would have highlighted to city people the extent of soil erosion in rural Victoria, he said.

Mr Mitchell estimated that an average of about 9.5 kilograms of topsoil from the north and west of the State fell on each suburban block in Melbourne.

The storm, which covered an estimated 75,000 square kilometres ranged in height from 350 metres and 3500 metres. Mr Mitchell estimated the amount of soil it carried as between 26,000 and 260,000 tonnes.

"There are already thousands of hectares of productive farm land affected which could take a decade or more to recover full productivity," he said.

The State Conservation Minister, Mr Walker, yesterday joined the NSW Agriculture Minister, Mr Hallam, in calling on the Federal Government for money to ease the problems caused by soil erosion.

Mr Walker said that the Federal Government had dropped plans to help the States. Millions of dollars were needed, he said. "We really are in a very serious position," he said.

He said that the problem was of national concern. The money would be used to buy equipment to lessen the chances of soil erosion on farms, to train farmers in new techniques, and to clear more than 300 km of irrigation channels blocked by shifting sands and soils.

Tuesday's dust had apparently come from bare land used for crops and grazing, Mr Mitchell said. Each hectare could have lost up to 200 kilograms of valuable top soil, he said.

Test by the authority showed that most of the soil was similar to talcum powder and was likely to have been rich in nutrients. With strong winds such fine soil could be blown as far as South America, Mr Mitchell said.

Such conditions "may not have occurred since settlement," Mr Mitchell said. The difference was that farmers today had better technology and methods for coping.

A Weather Bureau spokesman said there was little chance of giving the public advanced warning of approaching dust storms because its radar was effective only for water droplets.

The first warning the bureau got of the approaching storm was when its Geelong office rang. The bureau did not have time to ring the media, particularly radio stations, the spokesman said.

CSO: 5000/7559

SURVEY MEASURES ATTITUDES IN WA ON ENVIRONMENTAL ISSUES

Perth THE WEST AUSTRALIAN in English 14 Feb 83 p 41

[Article by Alex Harris]

[Text] MORE than 90 per cent of West Australians want more education about the environment but only a very few are involved in environmental issues.

The discrepancy between conviction and action was revealed last week in a survey on attitudes towards conservation and environment.

It was strengthened by the finding that 64 per cent believe that the Government is not doing enough, but only 33 per cent are prepared to pay more taxes for it to do so.

At the same time, 67 per cent thought that better conservation would not cost jobs.

The survey carried out late last year by 40 Murdoch University students from the course on population, resources and environment, canvassed 1500 people in metropolitan and country areas.

It was done for the Department of Conservation and Environment as an input to the State conservation strategy.

It was directed and analysed by Dr Peter Newman and Mr Iain Cameron of the school of environmental and life sciences.

Concern

"The concern for and understanding of environmental problems were stronger than we expected," Dr Newman said this week.

"But people think that the Government could do much more.

"There is a need for a conservation strategy which can begin to reverse some of the trends they think are out of control."

The survey showed that:

--Sixty-one per cent of those canvassed thought that the WA environment was deteriorating and only 13 per cent saw it getting better.

--Fifty-seven per cent thought that the land was being irreparably damaged.

--Only six per cent thought the State had so much land and so many natural resources that it would not matter how they were developed.

--Ninety-six per cent thought that, for their grandchildren's sake, much more should be done to look after the environment.

The biggest global concerns that emerged were nuclear war, food shortages in the Third World and the population explosion.

The strongest local concerns centred on the forests, where dieback, overcutting and the loss of rare species rated highly.

Industrial pollution and radioactive waste from mining were the main pollution issues.

Agricultural problems concerned soil erosion, salinity, salt land and chemical spraying.

City people were more worried about wasting energy, declining oil reserves, the lack of garbage recycling, nuclear power and vehicle exhaust emissions.

Dust in the workplace, bauxite mining, transport issues and the lack of parks and reserves were not seen as problems.

Although only a third of those interviewed were prepared to pay more taxes for conservation, there was still a strong belief in government.

Seventy-three per cent thought that the Government could solve many environmental problems by exercising its power in a stronger and more committed way.

Belief

There was also a strong belief that local government could do more.

The survey showed strong support for voluntary conservation groups, but only about 12 per cent of the respondents had been or were members.

Sixty-seven per cent suggested that the groups did good work or were essential.

Only six per cent considered them "a bunch of stirrers" who "did more harm than good."

The Minister for Conservation and Environment, Mr Laurance, said yesterday that the State conservation strategy would be completed in a few months.

Many of the issues dealt with reflected the concern shown in the survey.

He said that the Government agreed with the need for a better informed public.

SPILL OF ACID EFFLUENT IN INLET SPARKS CRITICISM

Laporte Pipeline Problems

Perth THE WEST AUSTRALIAN in English 10 Feb 83 p 1

[Text]

BUNBURY: A spillage of acid effluent from the Laporte pipeline is reported to have killed thousands of fish and crabs in Leschenault Inlet.

Though the leak was repaired on Monday, the red stain that it caused was still visible over a big area of the inlet yesterday.

The latest spillage has angered the chairman of the Leschenault Inlet Management Authority, Sir Donald Eckersley, who described it as one of the worst ever.

"We're not a bit happy about it," he said yesterday. "The management of the pipeline has not been of a sufficiently high standard."

Sir Donald said that there had been something like 50 breakages in the effluent pipeline since 1974.

A former professional fisherman, Mr Ray Parker, said that he had seen thousands of dead fish and crabs on the estuary bed.

There have been a number of other reports of sightings of dead fish and crabs along the western shoreline.

Reply

The administration manager of the Laporte titanium plant, Mr Marius Derums, said yesterday that the red stain probably made

the spillage look worse than it was.

He thought that reports of thousands of fish being killed were an exaggeration.

Mr Derums said that the effluent was basically a weak solution of sulphuric acid and iron sulphate which, even in low concentration, was clearly visible in the water.

The stain from Monday's leak had been "fairly extensive" but he did not know just how much effluent had split into the inlet.

Immediate contact with the effluent would affect marine life, Mr Derums said.

Both Laporte and the Public Works Department are investigating the spillage.

The spillage has occurred as University of WA scientists and private consultants are conducting a study into the effects of effluent spillage on marine life in the inlet.

The State Government announced last year that it would buy 316 hectares of extra waste-disposal space on the Leschenault Peninsula.

The Laporte plant produces titanium dioxide from ilmenite sands mined at Capel. Effluent is pumped across Leschenault Inlet for disposal in lagoons in sand dunes close to the ocean.

Call for Improved Controls

Perth THE WEST AUSTRALIAN in English 12 Feb 83 p 6

[Editorial]

[Text]

YOU would think that after numerous leakages—some 50 in the past nine years—a pipeline carrying toxic waste across a recreational waterway could be made safe.

But no. This week the Laporte effluent pipeline leaked again, staining a big area of Leschenault Inlet and killing fish and crabs. The chairman of the Leschenault Inlet Management Authority, Sir Donald Eckersley, described it as one of the worst spills ever. An inquiry has been called.

There was no device to detect a leak on the section of the pipe that burst, but according to the Minister for Works, Mr Mensaros, the possibility of fitting such equipment will now be re-evaluated.

Sadly, this is all too often the case when pollution threatens the environment—safeguards come after the damage has been done.

The safety of Leschenault Inlet has been a worry since the 1960s when Laporte began producing titanium dioxide and pumping the waste across the inlet and into sand dunes near the ocean.

We need the industry, of course, and some environmental sacrifice was inevitable from the start. But there should be no short cuts with pollution control, especially now that the Government has the recommendations of a long-term study on Laporte waste.

CSO: 5000/7560

SEWAGE SPILL IN HAWKESBURY RIVER CALLED THREAT TO HEALTH

Sydney THE SYDNEY MORNING HERALD in English 10 Feb 83 p 3

[Article by Roland Fishman]

[Text]

Penrith Council dumped 12 million litres of partly treated sewage into the Hawkesbury River every day for a month until it was told to stop, the State Pollution Control Commission said yesterday.

Mr Peter Yates, the commission's engineer in charge of water pollution, said the council had been told last August to repair two sewage-maturation ponds. However one of the ponds had to be available immediately if any other part of the system broke down.

But when the trickling filter system failed about a month ago the council released partly-treated sewage into the Hawkesbury.

The commission discovered this last Thursday and ordered the council to fix it. One of the maturation ponds was brought into use at 1pm yesterday.

Late last month about 10 days' water was released from Warragamba Dam to wash away a bloom of algae that was spoiling drinking water in the Richmond-Windsor area.

This came at a bad time. Pollution conditions were at their worst and water flow in the river was minimal. As a result, a higher than normal level of fertiliser nutrients were polluting the river.

The treatment works were overburdened as well. A plant designed to service about 44,000 people was servicing up to 58,000 although the commission has authorised the council to increase the capacity of the works to 70,000.

Mr Yates said the partly treated sewage had not had a significant impact on the health of recreational

uses of the Hawkesbury.

However one general practitioner in the Hawkesbury district, Dr Peter Hauer, said yesterday: "I, like everyone else in the district, am concerned with the health risks associated with the pollution of the Hawkesbury."

"There has been an apparent increase in the number of people suffering from vomiting and diarrhoea, but at this stage, there is no definite proof that the problems are associated with the river."

"There is also an apparent increase in the level of impetigo, or school sores, but again it cannot be directly related to the river."

"Currently, I am advising my patients not to swim in the Hawkesbury. And in some instances I am advising patients to boil water. I tell all patients that bore water is available at Richmond."

The Penrith Council's chief engineer, Mr Norm Dickson, said all the partly treated sewage had been treated with chlorine.

He said the council had begun work on the ponds immediately the commission had ordered them to be fixed, but it had been impractical to follow the procedure set down by the commission.

The second pond should be in use by Friday.

Mr Dickson said sewage did not go through the trickling filter system when there was an overflow.

The editor of the Hawkesbury Press, Mr Tony Hoy, who has been campaigning against the pollution of the river for some time, said yesterday that the river water "did not taste or smell very good."

"I never swim in the Hawkesbury, or let my children swim in it. My children developed impetigo after paddling in the river," he said.

CSO: 5000/7560

ADDITIONAL FUNDS SET FOR PEEL, HARVEY ALGAE STUDIES

Perth THE WEST AUSTRALIAN in English 11 Feb 83 p 9

[Text]

THE WA Government has allocated an additional \$72,500 for what it regards as a critical part of its programme to clean up the Peel Inlet and Harvey Estuary.

The Minister for Conservation and the Environment, Mr Laurance, said that the extra money would enable the Government to step up its efforts to reduce the flow of nutrients into the estuary.

Research had indicated that changed fertiliser practices on coastal-plain farms could substantially reduce the phosphate input into the estuary.

The extent of the algae bloom was directly proportional to the amount of phosphate flowing into the system.

The additional funds would:

- Accelerate the soil-sampling programme to allow expert advice to be provided on the best fertiliser practices.

- Launch a publicity campaign to make farmers aware of the advantage of a new slow-release fertiliser.

- Establish a moni-

toring network on surface streams draining from the critical catchments to see how effective the fertiliser reduction programme was.

- Undertake an underground water-monitoring programme to measure the impact of phosphate levels in ground water.

Mr Laurance said the advantage of the new fertiliser programme was so clearly established that the Government was anxious that it be implemented during the next few months before the winter rains.

Farmers had been informed of the fertiliser trials and had shown every willingness to co-operate.

Field trials had shown that the slow-release fertilisers maintained pasture yield, but a high proportion of phosphate was retained in the soil after the first year.

CSO: 5000/7560

BRIEFS

SOIL RADIATION PROBLEM--THE legal battle looming in Byron Bay could have repercussions throughout Australia. A decision should identify who is responsible for radioactive soil and whether compensation should be paid to people who have built in the affected areas. The battle is likely to be fought on two fronts--a group action against the sand mining company which produced much of the soil and private action against the Byron Shire Council for permitting building on the contaminated land. The NSW Government says it will support any move by Byron Bay residents to seek compensation, but there is no guarantee that the NSW Government will not have to defend itself against land-owners claims. Should landowner action succeed, similar compensation claims could cost either or both mining companies and government bodies millions of dollars. The clean-up bill for Byron Bay alone is estimated at \$770,000. The soil radiation problem almost certainly extends to dozens of sites on the Australian coast, including areas of dense population such as Geraldton in Western Australia, Southport in Queensland and Coffs Harbour, Kingscliff and Hexham in NSW. [Canberra THE AUSTRALIAN in English 10 Feb 83 p 3]

SYDNEY OZONE POLLUTION--Sydney's ozone pollution reading yesterday was the highest this summer, a spokesman for the State Pollution Control Commission said yesterday. The spokesman said the ozone level over Sydney peaked at 16.3 parts per 100 million, which he said was a high reading. "The National Health and Medical Research Council recommends there should not be more than one day a year reading above 12 parts per 100 million," he said. The high level was caused by emissions from motor vehicles and factories being trapped by a lack of wind and layers of cold and warm air. The emissions, trapped over the Sydney basin, were exposed to sunlight, producing the invisible ozone. The spokesman said there had been 11 days this summer in which either ozone or other pollutants had resulted in a high pollution level. However, Dr Allan Crawford, senior public health specialist with the Department of Health, said that although the pollution levels recorded this summer had been high it was most unlikely they would have caused any health problem. [Sydney THE SYDNEY MORNING HERALD in English 17 Feb 83 p 3]

CSO: 5000/7560

BIOGAS SYSTEMS MEANS OF OVERCOMING RIVER POLLUTION

Kuala Lumpur BUSINESS TIMES in English 28 Mar 83 p 19

[Article by Tai Sing Onn in Manila]

[Text]

IN JUST a few short years, a "recycling revolution" could very well start to sweep across the countrysides of Asean and other developing countries making rivers and streams clear and sparkling again and fishing once more a worthwhile pursuit.

This is the rosy picture that the Manila-based Asian Development Bank's (ADB) senior agronomist, Dr Dimyati Nangju, chooses to paint in the face of steadily mounting reports from all over Asia of more rivers and bodies of water "dying" because of heavy pollution.

And Dr Nangju is optimistic for the simple reason that the ADB is expected to complete next month feasibility studies in the Philippines on the recycling of agricultural wastes.

He told Bernama in an interview that if the report of the feasibility studies were to be approved some time this year, the prototype of a biogas system could be built to recycle agricultural and animal wastes which now pollute water systems in Asia.

And Dr Nangju was enthusiastic as he discussed the prospects of such a prototype in his office in the ADB complex.

"Once we have built the prototype of the biogas system we can go to Asean and developing countries," he said.

"In Malaysia, for example, the palm oil waste can be turned into biogas.

"At present, you have to build large ponds for palm oil wastes resulting in heavy pollution.

"Sugar-cane waste can also be turned into biogas.

"And then you have rural farms which cause pollution.

"By having biogas systems for pig-herds, duck and poultry farms, you solve your pollution problems."

Dr Nangju said that biogasification technology is well-known. "It is not as if we had invented the wheel," he said.

The only thing left to be done is to build the prototype before spreading the technology to other developing countries.

He estimates that for small rural farms, a biogas plant would cost between \$1,750 and \$2,000.

This would consist of a biogas digester which would convert the animal wastes from pigs or poultry or ducks into methane which would be conducted into homes and used as fuel by means of piping.

Dr Nangju said that very little maintenance was needed and a biogas digester could last about 10 years with periodic repairs to piping.

The sludge residue from the process could be used again as one of the ingredients of animal feed or as fertiliser.

Dr Nangju cited the benefits from such a simple biogas system.

First, it solves the problem of waste disposal and eliminates potential sources of pollution.

Next, rural households do not have to depend on firewood, coal and other energy sources for cooking or for lighting up their homes.

By using the sludge as feed and organic fertiliser, the farmer is thus assured of a more self-sufficient and self-reliant existence.

And what is more important and which one cannot put a price tag on, the stage will be set for the slow but steady growth of pollution-free countrysides again.

Rivers and streams which are being choked to death with agricultural, human and animal wastes will become clear waters again where swimming and fishing will once more be fun activities.

Dr Nangju, however, is quick to point out that for big farms, the capital outlay for a biogas plant would be substantial.

He cites the Maya farm outside Metro Manila in Laguna De Bay which has 50,000 pigs, 20,000 ducks and 500 head of cattle.

The sophisticated equipment for this waste recycling project came to over one million pesos or \$250,000 but is considered a good investment by the farm as it provides electricity, fuel for meat processing, pumping water and for refrigeration.

The Philippines Ministry of Agriculture estimates that yearly animals and crops generate about 780 million tons of waste.

At least two dozen rivers in the Philippines are already dead from pollution.

Biogasification, or the conversion of animal and agricultural wastes into organic fertilisers and energy using the anaerobic digestion process, seems, if not, the complete answer, a good part of it.

And the better part of it is that, according to Dr Nangju, it would not take long to come up with the prototype of the biogas plant.

As Dr Nangju puts it: "A journey of 1,000 miles begins with the first step."

More than just a few steps have already been taken. — Bernama

CSO: 5000/8006

CASE AGAINST WATER POLLUTANTS EXAMINED

Bangkok BUSINESS IN THAILAND in English Feb 83 pp 170, 172-173

[Article by Wiboon Nakornjarupong]

[Text]

Environmentalists have put it correctly that herbicides and insecticides are two-edged swords. If used properly, these chemicals are very beneficial but if used incorrectly, they can pose quite a disastrous threat to the natural environment and lives.

The analogy was again proved true when it was reported that the major cause of an epidemic that killed millions of pond-raised fish in the Central Plains, particularly in the Province of Suphan Buri, in January this year was from toxic chemicals used by farmers against weeds and insects.

Actually, the incident was not the first in Thailand. According to research conducted by the Toxicology Division of the Ministry of Agriculture and Cooperatives, in 1980 a large number of villagers in Hua Hin, Prachub Kiri-khan Province were also affected by an incurable skin disease. Their rice crops were also badly damaged. After investigation, it was found that the sickness and damage were caused by residues of herbicides and insecticides used in the pineapple plantations. The soil and water samples taken from that area contained residues of two major herbicides: diuron and bromacil whose content range from 8.31 ppb (ug/L) to 137 ppb and from 9.97 ppb to 14.641 ppm (mg/kg) respectively.

In 1981, the research team conducted yet another probe into a fish killing epidemic which occurred in the provinces of Bangkok,

Pathum Thani, Nonthaburi and some others in the South where herbicides were widely used against weeds in rubber plantations. The team found that all water samples contained toxic residues of a herbicide called Paraquat, plus 2,4-D and 2,4,5-T. The content of 'Paraquat' was calculated at 0.02-0.11 ppm (mg/L).

The latest and the worst incident killing marine life occurred this year in the provinces of Chacheoengsao, Pathum Thani, Samut Prakan, Nakorn Pathom, Ayutthaya and Suphan Buri. The latter was the hardest hit. Damage had been roughly estimated at not less than 100 million baht. A laboratory test found that samples of water taken from fish ponds in Tambon Makharmirom of Bangplama District contained 0.03 ppm (mg/L) of Paraquat and 0.003 ppm (ug/L) of Dieldrin, that from Tambon Sali was 0.118 ppm of Paraquat and less than 0.001 ppb of Dieldrin-trace, and that from the irrigational canal in Tambon Makharmirom had 0.093 ppm of Paraquat, 0.006 ppb of Dieldrin and 2.95 ppb of Atrazine.

Toxic substances were also found in the body of a dead fish tested in the laboratory.

In the wake of this event, the danger of using herbicides and insecticides without full knowledge became a big issue of public discussion. Some accused the Government for its failure to control the sales of toxic substances, while others blamed it on greedy sellers and

the farmers themselves who indiscriminately used the chemicals.

The strongest words of all were probably those from Dr Prayoon Dima, director of the Toxicology Division, Ministry of Agriculture and Cooperatives, who was appointed by the Government to investigate the case. He disclosed after completing a probe that the freely-imported and the widely used 'Paraquat' was the main chemical which killed the fish. His statement did, of course, stir up reaction from the local distributor of the herbicide, the East Asiatic Company (Thailand) Ltd. who sent out statements to local press denying that Paraquat was harmful.

The company flew in a team of experts from ICI Ltd (UK) to conduct their own investigation. According to the team, the killer of the fish was not their weed-killer but a mysterious bacteria called 'aeromonas hydrophila'. EAC claimed that its herbicide "is probably the most thoroughly researched agricultural chemical in history ... used throughout the world including Thailand for over 20 years."

Commenting on the statement, Dr Prayoon told BIT that it was half true. He contended that there were two varieties of Paraquat Paraquat 'S' containing dimethyl sulphate and Paraquat 'W' containing dichloride. While maintaining the former was a good and useful herbicide and relatively safe, he said the latter was harmful. "And it is Paraquat W which has been widely marketed in Thailand," he said.

Dr Prayoon had planned to appear on television on Sunday 23 January on the Royal Thai Army's program 'Talks on Democracy' in which he was to discuss the dangers posed by Paraquat and other toxic chemicals in Thailand. Prayoon then threatened to resign as Toxicology's director after his program was banned by the authorities following explicit instructions from Prime Minister Prem Tinsulanonda. Dr Prayoon told BIT the Prime Minister was worried his program might affect the commercial operations of herbicide and insecticide manufacturers and distributors here.

Another point of controversy was the quality of the herbicides and insecticides being sold locally. Before

launching its own product onto the Thai market, the Shell Company of Thailand embarked on an extensive research study to gauge the standard of the competition. The findings of this research, which were made available to BIT, showed that many of those being sold locally are below required standards.

The research tested the quality of four major kinds of insecticides marketed in this country under various brand names ie cypermethrin, mevinphos, monocrotophos, and dicofol. Shell's investigators concluded that cypermethrin insecticide from 10 companies had an active ingredient and emulsion stability at 50% below the required standard and a moisture content at 70% over the set standard. The mevinphos group had active ingredient, active ingredient instability and emulsion stability at 78%, 33% and 11% respectively below standard, and the moisture content at 11% over the requirement. The test on the monocrotophos group found that products from the 10 companies contained an active ingredient, active ingredient instability and emulsion stability at 100%, 15% and 62% respectively below standard. The last group was dicofol products, with the research finding that they contained a moisture content at 25% over standard and the emulsion stability at 50% below.

The research cited market competition as the main reason for such deterioration in quality. It said that presently there are almost 100 companies engaging in marketing and distributing similar chemicals. And in order to win a market share, these companies applied all forms of marketing strategies possible. The most common was the undercutting of price and the deterioration of quality. The market was also full of fake or extremely low standard products put out by illegal produces, Shell found.

The research further said that these companies have been taking advantage of the situation where most Thai farmers are low-educated and know very little about modern agricultural technology. According to the research, the factors affecting the decision to buy pesticides or insecticides by farmers are firstly, the price must be cheap; secondly the product must offer a special 'gift' like those widely advertised on TV; thirdly, the names

must be those which they have frequently heard on radio or TV commercials; and lastly, quality. Simply put, price is regarded as the first priority while quality comes last.

However, in looking at the situation objectively, it is accepted that local farmers have to grab anything that is cheap in order to limit their production costs. In Shell's research study, it was found that the use of insecticides or herbicides in the production of certain crops such as cotton can sometimes be as high as 60% of the total production cost. In a situation where the sale prices of agricultural products are low, farmers therefore can't afford to buy good but expensive chemicals.

According to Dr Prayoon, all government agencies involved should come in under one roof so that their policy implementation can be done more effectively. "Today, there's not enough policy coordination," he said.

As for legal controls over the use of chemicals, Dr Prayoon pointed out that there were still a lot of weak points in the existing chemical control act. Pointed out as one weakness was the fact that the authorities can't control the use of any chemicals which are not included in the Toxic Chemicals Control Act. He explained that if the government wanted to include certain chemicals under its control, it must be sure that there are enough resources such as testing equipment or manpower to check such chemicals. Since the government doesn't have these resources, it is very difficult to put them under its control. As a result, some of the chemicals marketed here have simply, easily, slipped in through the government's legal loophole.

According to Dr Prayoon, a government sub-committee has been formed to investigate the situation. ●

CSO: 5000/4320

'AL-AHRAM' EXAMINES ENVIRONMENTAL IMPACT STUDY

Cairo AL-AHRAM in Arabic 25 Mar 83 p 8

/Article by Mahmud Murad/

/Text/ Last week the president of the republic met with his principal aides and several governors to discuss problems affecting the individual citizen and society. The leading subject was the environment and public sanitation.

We shall review on this page an important study of the problem; a study which was done by the Services Committee of the State Council. I asked the opinion of the concerned or associated with the problem in preparation for a discussion of it, choice of solutions, and methods of treatment.

Before beginning, it may be worth mentioning that the newspaper AL-NADWAH had previously discussed the same subject from different angles in a wide-ranging and continuous debate in which officials and experts participated. However, the fate of most of the recommendations is still unknown. We hope this will not be the fate of the recommendations made in the State Council's study.

An issue is indeed important when addressed by the president of the republic himself, as happened last week with respect to the environment and sanitation in Egypt. It makes officials aware of the need to concern themselves with it and it encourages individual and collective efforts that serve society and contribute to its development.

The issue is really important, but at the same time it gives a negative indication regarding the government institutions and agencies concerned with the environment and sanitation. On the other hand, we must not expect the president to intervene personally in every matter and involve himself in the smallest details and particulars. According to a comment that I heard from an Egyptian scientist, he asks: are we to place all the burdens on the president of the republic from the complex worldwide problems and issues of nonalignment and fate of the Arab nation to the collapse of a building and cleanliness of a street?

True, the question of the environment and sanitation is not an "esthetic luxury" but above all a production and economic necessity. More than that, as the report of the Services Committee of the State Council says, it will

impose itself on the political decision makers in an acute form during the coming period in a way that will directly affect the relations between the various states.

That is quite true. The State Council's report did not exaggerate. But despite its importance and despite the president's intervention, the 1982/1983-1986/1987 five-year plan did not contain any reference to investments for processing wastes, which are increasing tremendously and doing fearful damage.

This is the contention of the State Council's report based on exhaustive studies and government data and on discussions with officials. Hence the review of its contents aims at the following:

- (1) AL-AHRAM undertakes in turn to provide more information on the problem.
- (2) Raising the issue once more before the decision makers, officials on all levels, and public opinion so that each party can perform its "desired" role.
- (3) Concentrating on what should be concentrated on positively and negatively until the facts become apparent...just in case some cannot see the whole picture.

This is the purpose of our review of the report, which is divided into a short introduction and four parts, all of them in about 20 sheets of foolscap.

Introduction

The introduction asserts that while the Egyptian man is the goal and tool of any development, any delay in dealing with the environment and the public sanitation problem and any reduction in the human and material credits required to meet this challenge will affect the tempo of social and economic development as well as the political course of the country and its cultural direction, that is to say, it will harm the Egyptian man and his society.

In analyzing the man-environment relationship, the introduction says that at the beginning of his history man was concerned solely with protecting himself against the environment and its different elements--animals, creatures, and natural factors. But now it is the environment itself that needs protection against man because it is no longer capable of absorbing his transgressions. This is what is happening in the oceans and rivers which can no longer be purified of the wastes that are dumped into them ..And man is dying as a result of air which is polluted by the combustion products of factories. This and other factors affect agriculture and the food supply. The air is filled with noise, the greenery is retreating, peoples' tastes are changing, diseases are spreading, and man's mental and physical health is weakened, which necessarily influences his feelings and behavior.

Part I

The report takes a nationwide look at Egypt's environmental problems. The most important, it believes, is the increasing population concentration in the

Nile Valley and Delta with insufficient efforts being made in the field of land reclamation to enlarge the arable area and the lack of systematic studies on the environmental impact of most projects in the field of industrialization, housing, power, or land reclamation because there is no legislation requiring the preparation of a study of the environmental benefit independent of the economic benefit. Then too environmental considerations are being ignored in urban planning for new residential areas and in designing housing units. For example, no specific standards are available for distinguishing between residential areas, on the one hand, and industrial and tourist areas, on the other. There is also an important environmental problem caused by the increasing degree of local pollution of the Mediterranean and Red seas due to intensified shipping activity and to the use of sea and lake water as drains for disposing of the liquid wastes of the coastal cities. The steadily increasing peaceful use of nuclear energy is likewise enhancing the possibility of contaminating and endangering the environment. In addition, arable soil is being contaminated by the increasing use of chemical insecticides.

These problems emphasize the role of public sanitation, which is below the desired level and represents the most important source of pollution in both rural and urban areas.

The report refers to wastes, liquid and solid, and warns that they have been increasing at a rapid rate in recent years and are now a burden on the ecosystem because of its inability to eliminate them safely and at the right time due to the failure to use modern technology as the advanced countries do, for example, processing garbage.

The importance of disposal for health, economic, and social reasons grows with increasing neglect of public sanitation.

Part II

This section talks about the factors specific to the level of public sanitation, for example, the sources of solid wastes, which consist of household refuse, industrial wastes, wastes of construction and demolition operations, streets becoming refuse dumps, and human and animal excrements. The volume of such wastes is estimated to average about half a kilogram per person daily, i.e., the wastes of the city of Cairo alone are estimated at about 4,000 tons daily and those of Alexandria at about 1,250 tons daily. Street and building wastes make up the largest part while solid household wastes constitute no more than 30 percent. This kind of waste has resulted in the deterioration of public gardens and many green areas. Among the encouraging factors is the small number of fines levied against violators.

The report demands that these solid wastes be disposed of by collecting, transporting, and treating them. It notes that many governments have used a variety of methods for doing so by depositing them in containers set out in the streets in a prescribed way for household and street wastes to be placed in them. For building wastes, however, certain tractors are assigned to haul them to designated places for a fee. Fines are levied against violators as a deterrent.

The report lists several methods for hauling away refuse as well as several methods for using it profitably.

~~The report then turns to the reasons for the worsening of the wastes problems and the factors responsible. The report ends by noting that the various agencies in charge do not do their job as they should. Moreover, there is no coordination between the actions of the authorities responsible for public services like the Sewerage Authority, Drinking Water Authority, Wire and Wireless Communications Authority, Roads and Bridges Authority, Electricity Authority, etc. This increases, for example, the volume of wastes produced by digging and repair work in the streets because in most cases the authorities do not act at the same time or coordinate their actions so that the digging and repair work goes on while wastes continue to increase.~~

Part III

In this section the Services Committee of the State Council makes suggestions and recommendations that it considers essential for raising the level of public sanitation and solving the solid wastes problem "in light of the studies, investigations, and trials carried out in many government agencies and local jurisdictions."

1. Direct Suggestions

The volume of solid wastes produced by the increase in number of residents and their concentration is about half a kilogram per person daily in Cairo, i.e., 4,000 tons every day distributed as follows: 2,500 tons of household and street refuse and 1,500 tons of building and public utility wastes.

By generalizing these average amounts it is possible to estimate the volume of solid wastes for all Egypt at about 23,000 tons daily, including 14,380 tons of household and street refuse and 8,620 tons of building and public utility wastes.

This requires solutions as follows:

(1) Administrative. With respect to refuse collection, the committee recommends the establishment of companies specializing in refuse collection in residential areas instead of dividing the work and responsibility in this field between refuse collectors acting in their own behalf and workers employed by councils of cities, quarters, and units under local jurisdiction, provided that the management of these companies is assigned to private organizations competent in public sanitation work. However, the capital of these companies will consist of both permanent subscriptions paid by the group of users and credits available for public sanitation work in local jurisdictions.

(2) Technical. The committee suggests that garbage be processed and converted into organic fertilizer for the country as a whole. This is the main solution. Some feasibility studies done for several governments (like the Japanese study for Alexandria) confirmed that the cost of operating a garbage processing plant is about 30 million pounds with an output capacity estimated at about 1,000 tons of fertilizer a day.

Thus, all Egypt will require 14 plants costing 420 million pounds from which it will derive large revenues by selling the fertilizer produced, not to mention dispensing with imports for hard currency. Then there is the health benefit from raising the level of public sanitation and preventing diseases and epidemics as well as the social benefit.

As for conversion, the report says the committee observes that the 1982/1983-1986/1987 five-year plan for economic and social development contains no reference to any investments for processing garbage in the desired form despite the despicable levels of the waste problem and also despite the fact that the five-year plan aimed at spending 35 billion pounds in the 5 years. It also notes that the sums required to process garbage nationwide amount, according to the earlier report, to 420 million pounds, i.e., 1.2 percent of the total investments.

Therefore, the committee believes it is necessary to include garbage processing projects among the projects it was decided to modify within the framework of the five-year plan and to include in particular public restrooms within these projects since the resulting wastes will naturally increase in the next 5 years.

(3) Legislative. The responsibility of the various agencies must be determined along with their obligation to restore the condition of the streets and sidewalks to what it was before the necessary digging regardless of its purpose. However, that will be done within a time period established in advance and calculated from the date of the end of the work, with large and increasing fines to be levied against violators.

2. Supplementary Suggestions

(1) Redistribution of residents geographically by using active means that go beyond the traditional administrative methods.

(2) Preparation of an escalating and continuous information program to make the people aware of public sanitation as a social, cultural, and esthetic value in addition to using the resources of private organizations and religious, education, and youth institutions.

This and more should be done after the means of collecting and transporting refuse are provided and organized so that the government's effort is combined with the people's effort.

Part IV

This section includes important documents and statistics on the population and housing map of Egypt...people and land of all kinds. From it we learn some important facts. For example, the Raud al-Faraj quarter has the greatest population density with 111,778 persons per square kilometer. It is closely followed by the Bab al-Shi'riyah quarter with a density of 111,545 persons per square kilometer, then Shubra with 89,292 persons, al-Kahlifah with 79,086 persons, al-Sahil with 75,400 persons, and al-Zaytun with 71,929 persons.

However, density does not mean more residents relative to the rest of the areas, for while the quarter which belongs to apart of Raud al-Faraj, for example, is the densest, al-Matriyah has the largest population with 611,400 persons or 10.7 percent of the total Cairo population. But its density is only 9,018 persons per square kilometer because it covers a vast area, whereas Raud al-Faraj contains only 301,800 persons.

We find that al-Sharabiyyah contains 499,300 persons, that is, after al-Matriyah comes al-Sahil with 490,100 persons. The least populous quarter is 'Abidin where 95,900 persons live at a density of 59,938 per square kilometer. Example, there are about 900,000 properties in Cairo with about 750,000 housing units. Nonresidential units number about 30,000. Another example, the green areas of Cairo cover 4,058,131 square meters, i.e., about 967 feddans.

But this raises the question: Is it a fact that all this area is green, covered with trees and plants? Or is it fair to assume that while it is green, most of it is sand and neglected soil? Then you wonder: How much of this area has been turned into refuse dumps and mounds of wastes and rubbish?

According to official reports, the length of paved streets in Cairo is 3,000 kilometers with a surface of 30 million meters. The length of dirt roads is 1,250 meters with a surface of 10 million meters.

The governorate of Cairo, it will be noted, is the source of these figures. Hence, they did not indicate whether all these paved streets are really paved.

We believe in the importance of the study put out by the Services Committee, which is headed by Dr Mahmud Mahfuz and includes highly qualified and experienced individuals. However, one question remains to be asked, how long are we to study the problem, any problem, get to know it thoroughly, and know its solutions and its treatment...yet keep on writing and speaking but not act or accomplish anything?

5214
CSO: 5000/4610

EXPERT: TAMIL NADU, KERALA MAY BECOME DESERT

Madras THE HINDU in English 17 Mar 83 p 7

[Text]

NEW DELHI, March 16

A Thar-type desert may develop in south India unless urgent measures are taken to stop the massive deforestation taking place there, according to an eminent environmentalist.

Dr. Rashmi Mayur, Director of the Urban Environment Institute, Bombay, warns that the intensity of drought in the southern States, especially in Kerala and Tamil Nadu, would increase year after year if the States do not go in for an immediate afforestation programme.

Citing Kerala as an example, Dr. Mayur says that nearly a third of the trees there have been cut down since 1940, resulting in climatic imbalances and shortage of rainfall.

Dr. Mayur was here to attend a reception accorded to him for winning a U.N. award in recognition of his services in the cause of environment.

Soil erosion: The lush tropical forests are being gradually wiped out in the quest for more agricultural land and land for industrial units. He feels that Kerala will face the same problem as Brazil once faced because of deforestation in the Amazon tropical forests.

Massive soil erosion on the western coast, especially in Kerala and Goa, is another reason he gives for the lesser rainfall in these areas.

Dumping of effluents and chemicals into the rivers and below the earth is polluting the groundwater and upsetting the ecological balance. Massive water evaporation is also another reason for the drought.

Reducing evaporation: Creation of underground lakes and putting layers of chemicals on the water surface could reduce evaporation, he says, adding that Israel is using this method successfully.

Hundreds of years ago, the Thar desert was blooming with thick forests, and herds of elephants used to roam about freely. Likewise, Tunisia and Morocco, which once used to supply food materials to the Roman empire, are now more of a desert and are importing 60 per cent of their food requirements.

Dr. Mayur warns that south India will go the same way if the deforestation and reckless using of water go on at the present rate.—PTI.

CSO: 5000/7034

RECOMMENDED FOREST POLICY TAKES TRIBALS INTO ACCOUNT

Bombay THE TIMES OF INDIA in English 29 Mar 83 p 7

[Text]

NEW DELHI, March 28: THE new forest policy, recommended by the National Environmental Planning (NCEP) lays great emphasis on the generation of employment for rural and tribal population and rapid increase in forest cover on denuded lands unfit for permanent agriculture.

Keeping in view the need for evolution of a conservation strategy, the NCEP in the new policy has called for a forest management programme of multiple functions and multi-dimensional uses, including conservation of environment, protection of existing forest eco-systems, conservation of flora and fauna, development of selected forest areas for educational and recreational purposes, grazing facilities for the large livestock and protection of interest of tribals in the profits of trade and industry based on minor forest produce (MFP).

OTHER FUEL SOURCES

It is stated highest priority must be given to stopping any further reduction in tree cover both by protecting existing forests from destruction and provision of alternative sources for fuel, fodder and timber needs of the people and requirements of forest-based industries. Diversion of forest lands to non-forest purposes should be done after careful examination by competent authorities keeping in view social and environmental costs and benefits and should automatically include funds as a part of the project cost to provide for compensatory afforestation.

Management of all existing forests should be regulated for maintenance of basic environmental functions. A minimum tree density should be main-

tained with constant monitoring of regeneration growth and mortality of the tree crop, besides, periodically undertaking integrated and comprehensive forestry, hydrological, soil, botanical, geological and zoological surveys. Clear-felling of natural forests and their replacement by monocultural plantations of quick-growing species—by state forest departments and state forest development corporations should be avoided.

Monitoring of working forests to maintain ecological balance and overall conservation of environment should be ensured by a Central agency and financial incentives provided to local populations to preserve and enhance forest cover including encouragement to formation of forest labourers co-operatives and forest-based cottage and small-scale industries.

Shifting cultivation should be eradicated through a co-operative effort and introduction of alternative programmes, including integrated programmes of agriculture, horticulture, animal husbandry and forestry suitably harmonised with proper land use practices.

SCRUTINY REQUIRED

According to NCEP report, forest-based industries, big or small should be permitted only after a rigorous scrutiny by a Central agency with special reference to environmental consequences. Such forest-based industries should be encouraged to obtain their own supplies at market price — to stimulate plantations of quick-growing trees on degraded lands. Pressure on forest resource base should be reduced through more efficient management like developing new uses of weeds like jatropa, ceutorhynchus, parthenium and water hyacinth, locate alternative substitutes in other resource areas, recycle and

use 'products' like use of alternative energy sources such as kerosene, LPG and biogas and adoption of the efficient and smokeless "chulhas" is particularly significant here.

The combined resources of Central and state governments should be utilised to halt further regularisation of grazing encroachments and prevent invasion of forest lands. A modern system of fire watching and organised fire-fighting should be evolved for protection from forest fire. Special efforts should also be made for forestry education, extension and research.

Early steps should be taken to improve the existing methods for regular collection, collection and publication of reliable data regarding all aspects of forestry management. The need for creating a people's movement for achieving these objectives has also been emphasised.

No more than 12 per cent of the country's land surface classed as forest lands in revenue records, is actually under adequate tree cover. While deforestation is taking place at the rate of at least one million hectares, new plantations do not account for more than 5 million hectares per annum. Thirteen million hectares classed as "permanent pastures" are in fact generally without any vegetation on account of either overgrazing or encroachments. Another 40 million hectares of non-forest lands are classified as either "falls" or cultivable, wastes and lack vegetal cover.

POLLUTION AT VARANASI ENDANGERS ENTIRE GANGES

New Delhi PATRIOT in English 11 Apr 83 p 4

[Text] Lucknow, 10 Apr (PTI)—Increase in population, unplanned industrialisation urbanisation and soaring traffic, have created a number of problems for the common man in Varanasi says a geologist of Banaras Hindu University (BHU).

It has changed the healthy composition of air and quality of water in river Ganga in the holy city, Mr G. C. Chowdhry told a visiting PTI correspondent during the Fourth Geological Congress held recently at the BHU.

:it is the ambition of every devout Hindu to visit Varanasi once in a life time and if possible to end his days in the sacred city for it is believed that whoever dies in Varanasi regardless of his race or religion will attain moksha or liberation from the cycle of death and rebirth" he said.

However, a dip in the holy Ganga now was not safe from the health point of view due to its increasing pollution, Mr Chowdhry pointed out.

Cremation of bodies at the 'Manikarnika Ghat' makes it impossible for a person to breathe. The problem becomes acute during summer when the flow of water is reduced.

Banning of cremations on the Ganga and the establishment of modern crematoria along the ghat, was recently recommended by scientists attending a seminar on pollution in river Ganga.

So serious is the threat to the Ganga that at the current rate of pollution in only about 50 years, the entire 1,550 miles stretch of the Ganga would become so polluted it would unfit for human consumption, says Dr B D Tripathi, an ecologist of BHU in his study.

All the riverine life down stream is said to have been destroyed by industrial effluents in the water where the pollution load is as high as 18 per cent.

Another study conducted by the Central Board for the Prevention and Control of Water Pollution has revealed that the holy river was contaminated to

the extent that it would adversely affect the lives of millions living in its basin.

The pollution is alarming in the vicinity of Moghal Sara railway yard as nearly 70 to 75 per cent of the trees, including the famous Banarasi mangoes in the Chadausi area, have died because of 'coal dust'.

CSO: 5000/7036

LAKE TIBERIAS WATER LEVEL RISES

Tel Aviv MA'ARIV in Hebrew 7 Mar 83 p 16

[Article by correspondents of MA'ARIV: "Lake Tiberias Water Level Rises 50 Cm. in 48 Hours"]

[Text] The water level of Lake Tiberias has risen 50 cm. since Friday morning, that is the lake was filled with about 80 million cubic meters of water. This is a peak which has not been reached for many years in the memory of 'MEKOROT' personnel.

This morning, following the heavy rains, the water level was minus 210.04 cm. Now it is only one meter below the maximum permissible level. Great quantities of water continue to stream from the Golan Heights and the Galilee to the collection basin of Lake Tiberias. And at MEKOROT they believe that they will have to open the Degania dam to prevent flooding at the beaches. From the beginning of the rainy season, 230 million cubic meters of water have been added to Lake Tiberias.

All the artificial upper water reservoirs throughout the country are filled with water. Because of the vast quantities of water which will penetrate the soil, a significant improvement has taken place in the level of the country's water table.

Water works people believe that it will be possible this year to begin "to repay the debts of drawing excessively from the water table over the past 30 years."

The MEKOROT Company yesterday began to increase the quantities which it injects underground to a quantity of one-half million cubic meters of water daily. Injection of the water is done to enrich the water table. At the same time MEKOROT continues operations to bring about artificial rainfall over the collection basin of Lake Tiberias. This activity adds about 15 percent to the quantity of rainfall over Lake Tiberias.

At Mount Hermon yesterday, there was a settling of the severe weather which had enveloped the place at week's end. During the most recent blizzard the snow reached some eight meters over ground level at the upper cable car station in Hermon.

This is the first time that such severe blizzards have hit Hermon during this season of the year. It would seem that this is the first season that the Hermon site will be open for skating and skiing enthusiasts over the Passover vacation.

In the snow and rainstorms which have hit the capital recently, there has been heavy damage to the municipal system of Jerusalem. At the municipality of Jerusalem it is estimated that the erosion and the road damage, the uprooted trees, the felled fences, the fallen traffic signals, the electrical shorts in the lighting system, as well as the number of days of snow alerts, are beyond the financial ability of the Municipality of Jerusalem. It appears as though the Municipality will apply to the government with a request that it declare the city a disaster area and finance the municipal activities in this regard. A spokesman for the Municipality, Rafi Davra, said: "The Municipality of Jerusalem requests the Government of Israel to recognize the damage caused in the capital as a result of the weather, as a natural disaster."

The spokesman for the Municipality added that the basic coping with the damage will take place towards spring: "At that time we shall be able to estimate the scope of the damage, some roads will have to be repaved entirely, and fences and trees will have to be repaired."

The Teachers' Federation of Bat Yam decided to suspend classes for hundreds of students in the city following heavy flooding of the classrooms.

8090
CSO: 5000/4513

BRIEFS

AIR QUALITY DETERIORATING--The month of January saw a worsening of the overall air quality throughout the country both as compared with December and in comparison with the previous January. The Environmental Protection Service reported this in a document on air quality. The report notes that the chief reasons for this are an increase in the concentration of dust particles in Beersheba and Jerusalem, Nethanya and Hedera. Even in Haifa (where monitoring equipment for measuring concentrations of dust particles were not installed at the time) a number of measurements were made of dust particles and the results indicate relatively high concentrations. A relatively significant increase occurred also in the concentration of sulfuric dioxide in Nethanya. In contrast, there were certain reductions in the average concentrations of the polluting gases in Haifa. Toward the end of January a mobile monitoring station of the League of Cities for Environmental Quality was put into operation at Gush Dan and it is located at the Central Transportation Authority Station in Petah Tikva. Preliminary results indicate relatively high concentrations, at times beyond half the norm, of dust particles. These results complete the data of the Environmental Quality Service which were received following measurements that were taken near the Bellinson Hospital in October. The data revealed that in the Petah Tikva area there is apparently a problem of high dust particle concentrations. These concentrations in Petah Tikva are within the range of a local phenomenon inasmuch as in those days there were no high concentrations of dust particles measured in other settlements. [Text] [Tel Aviv HA'ARETZ in Hebrew 14 Feb 83 p 7] 8090

ROSH HA'AYIN WATER SHORTAGE--In a winter blessed by rains, the citizens of Rosh Ha'ayin are suffering from a water shortage. Week after week, housewives in various neighborhoods wake up, turn on the faucet--and there is no water. In the early and cold hours of the morning, women sally forth with barrels and pails in quest of a source of water. Yossi Harabi, a resident of a public housing project complains: "Every Monday and Thursday they cut off the water without warning. If one wants to take a shower before going to sleep, there is no water. We have no reliable water supply. The Council is abusing the rights of people." Mrs. Tamar Levi, mother of a child and a tenant in Housing B, also complains about the constant shortage of water, "There are weeks when we are actually in a crisis. We get up in the morning, there is no water to wash our faces, there is no water to prepare a cup of coffee for my husband. A few weeks ago they cut off the water for 3 days in succession, and all that without prior notice." The deputy Council chief, Sa'adya Gamliel left an

announcement in response: "The shortage of water is because of the drillings of MEKOROT." A spokesman for MEKOROT, Mordekhai Ya'akovowitz, said in rebuttal: "The main fault is with the local Council of Rosh Ha'ayin. Rosh Ha'ayin gets its water from two drillings, one from the east and one from the west. The drilling of Rosh Ha'ayin is not connected to the system of pipes of the municipality because the municipality did not connect the drilling to an internal water line which would lead to people's homes. According to law, MEKOROT brings the water to the entry of the settlement. From there on the responsibility rests with the local authority." According to him, the piping system in the village is rotted and the Council is not replacing it. --[Text] [Tel Aviv MA'ARIV in Hebrew 7 Mar 83 p 25] 8090

CSO: 5000/4513

REGIONAL COOPERATION IN PROTECTING ENVIRONMENT UNDERLINED

Karachi DAWN in English 6 Apr 83 p 11

[Editorial]

[Text]

A complex matter like preventing degradation of the environment is obviously something which cannot be confined within the borders of any one country, and the United Nations Environment Programme's Asia-Pacific report for the last year lays stress on this aspect. The report calls for the sharing of burdens, and not just the benefits, of environmental protection by all countries, and states categorically that this is the only way in which a new environmental order can be achieved. In a very large number of cases the effects of upsets in the ecological balance in one country are felt in others, and sometimes pollution caused in one place has a very wide-ranging effect. A current example of this is the spilling oil from Iranian wells, which is threatening so many other countries, but it must be kept in mind that although this problem is of stupendous dimensions and has captured world attention, it is by no means a unique example of the damage that can be caused by pollution. Much more serious damage to the environment is being caused constantly, but so quietly that rarely does it come to general attention. Pollution of rivers, which affects

'countries downstream,' or the denudation of forests which may cause floods elsewhere, are two of the many ways in which the actions, or inaction, of one country may affect others. Environmental imbalances which face this planet are a serious threat, and the UNEP report has gone so far as to say that technology alone is no longer capable of averting an 'environmental collapse'; new structures are needed to prevent what is an inevitable breakdown. UNEP has devised its own structures — sub-regional programmes — for the area, but obviously efforts outside these are also essential.

The countries of South Asia face several environmental problems in common, but it is only recently that some moves were made to organise cooperative efforts. The most recent of these was the setting up of the nine-nation South Asia Cooperative Environment Programme, which took several important decisions at its first governing council meeting at Colombo earlier this year. A trust fund was established and ten 'down-to-earth' projects were approved for immediate implementation. These included such matters as improving environmental legislation;

designing and promoting fuel-efficient stoves; recycling wastes, particularly agricultural waste; an environmental and education programme for South Asia; and setting up a learning house for environmental services. What progress is made towards these ends remains to be seen, particularly when one keeps in mind that a plea was made at the meeting for larger contributions to the trust fund. But even if the 'immediate implementation' part of the decisions is ignored, this does mark the beginning of something that could turn out to be very important. It is obvious that in many cases, environmental factors in one South Asian country will inevitably affect others, which means that some decisions will have to be taken in conjunction with one or more countries to contain the harmful effects of any deterioration within the region. The formation of SACEP also implies a certain receptivity in environmental matters in each country of the region about the problems of others, which suggests that the process of cooperation might be beginning.

While it is true that the threat to the environment cannot be lessened without regional — and, ultimately, international — cooperation, it should also be kept in mind that there is little use in signing pacts or agreements if each country does not earnestly begin to put its own house in order. All the countries of South

Asia, for instance, are developing nations, which means that the process of economic development is being compressed into a comparatively short period of time. This results in environmental problems from two sides — that caused by under-development and poverty, and that caused by the acceleration of the development process. Unfortunately, no government in this region has been able to keep pace with the environmental problems which are being caused subsequently — in fact, most have not even been able to comprehend and identify the problems fully. This shortcoming is being overcome gradually with international assistance, such as that of UNEP, and governments are slowly starting to take action. Nevertheless, as the report puts it, a welcome shift in attitudes recently has been the increasing the recognition of the need for protecting the environment, and the cooperation that is required for this purpose. In Pakistan also there is indication of this, as a number of potentially helpful moves have been made in the last year or so, such as the establishment of the National Environmental Protection Council, and the decision to set up a full-fledged institute for environmental studies. Despite the temptation to look at the gloomy side of things, all this does provide a basis for hope that the environmental collapse which the report speaks of may be averted.

CSO: 5000/4712

NEW METHODS STUDIED TO COMBAT EXHAUSTION OF WOOD RESOURCE

Paris LE MONDE in French 23 Mar 83 p 44

Article by Roger Cans: "The Firewood Crisis in the Sahel: The Tropical Forest Is Going up in Smoke"

Text In our part of the world, where wood represents only a secondary source of energy, the log in the fireplace and bread "baked over wood-fire" convey a luxury image. For 100 million people living in the tropics, in Sahel Africa or the Indian subcontinent, firewood is a vital material, for cooking and also --as is sometimes forgotten--warmth.

Yet, the tropical forest, the only source of energy for these impoverished people, is being lost at the rate of 12 million hectares a year, equivalent to the area of Czechoslovakia. This shrinking of the forest forces the local population, and particularly women, to walk for many kilometers to bring back the essential firewood to the village. As it becomes more scarce, firewood becomes expensive. In order to survive, the country people cut everything within range of their machetes and sell wood by the roadside.

A vicious circle.

Although it represents 5 percent of total world energy, wood supplies almost one-fourth of the energy resources of the developing countries. In Upper Volta, 97 percent of the energy consumed is from wood, burned in "natural form" or as charcoal. However, the desertification process is affecting the entire Sahel, and the prediction is that there will come a day when, because of lack of fuel, entire populations will have to emigrate or perish. At least this was the assertion made recently in Paris by the Firewood Association, established in 1981 by the Research and Technical Studies Group (GRET), with the help of the Sahel Club and several French ministries.*

Initially, the effort was to reforest. At great expense: between 3,500 and 7,000 francs per hectare were planted...and fenced (traditionally there is a

* Firewood Association, 73 Avenue Corot, 13013 Marseille. Tel.: (91) 70-92-93; GRET, 34 Rue Bumont-d'Urville, 75016 Paris.

tree pasturage privilege in the Sahel area). And it was necessary to face facts: where there is less than 1 meter of rainfall a year, trees remain inactive and do not grow. Jean Grose, a World Bank expert, said: "In Bamako, Mali, the recovery rate of trees was almost 100 percent, but after 3 years all that was left was a forest of toothpicks."

Also, varieties have often been chosen for reforestation that grow rapidly, but hence have low heat yield. Yet the Africans, in order to ferment their corn beer or prepare their slow-cooked dishes, need a wood that "holds" the fire. Mr. Gorse reports that "in Gambia they burn rosewood." The experts' conclusion: the increase in consumption of firewood is "exponential," while the efforts to increase production of wood are still minimal or doomed to failure.

Thus far, two solutions have been proposed. First, a different form of reforestation. Rather than replanting, in the European fashion, large pieces of land set aside for timber, it would be better to return to the African traditions: shifting cultivation in wooded areas, which leaves trees after the farmers pass on, or planting of individual trees by the farmer himself, such as "acacias, which grow anywhere." However, today it is often too late for the first approach, because many wooded areas have disappeared. And the second approach, which would take a long time to establish, assumes education of the farmer, who left to himself does not plant trees.

Other than increasing production of wood, the only other solution is to reduce consumption of wood. Several years ago, international organizations came up with the idea of replacing the traditional cooking fire (a pot on three stones) with an "improved" fireplace, that is, enclosed, built up. Local "projects" financed by the international community were launched to introduce the improved fireplaces in the villages.

Still very limited success: "Of 12,000 fireplaces built, 30 percent are used," according to Tim Wood, an American technician with the Volunteers in Technical Assistance (VITA). The problem is that the first generation of improved fireplaces, designed by thermodynamic experts and not always taking into account the African realities, quickly revealed their limitations; cracks in the fire-chamber, sooting up of the ducts (chimney-sweeping is unknown in Africa), and poor adaptation of the holes for pots.

Construction materials (cement, cast-iron plates) remain expensive, and the saving of wood is not evident, given the disadvantages of all kinds. The Sahel peasants, who are accustomed to circling the fire in the evening, criticize the so-called "improved" fireplace for not giving any light.

The Firewood Association, aware of these problems, is trying to develop an approach more compatible with local practices. Yves Lambert, in charge of international relations for the French Agency for Energy Development, said: "The wood crisis can only be solved in coordination with agriculture." In effect, on poor land there is harsh competition between the tree and the cultivated field. It is thus necessary to explain and convince. As for the

improved fireplace, which is still uncertain, the technicians will try to involve housewives and local artisans (potters and blacksmiths) in the operation.

The single model is not suited to practices which can be very different from one area to another, and sometimes one village to another. The technician must thus operate also as a sociologist and especially a teacher. It is a difficult task for volunteers struggling almost barehanded against the desert. What is involved is the survival of millions of people...and the environment of all of us.

9920
CSO: 5000/141

DEFORESTATION PROBLEM LABELLED 'HOPELESS'

Addis Ababa THE ETHIOPIAN HERALD in English 11 Mar 83 pp 2, 3

[Text] For the pessimist, Ethiopia's soil erosion problem is just hopeless. Not that there is no possibility to reclaim the once renowned greenery of this country, but it seems to be too late to ever arrest the effects of the perennial denudation this country experienced for centuries. It is estimated that 50 per cent of Ethiopia's land area is subject to severe erosion and that 20 tons of soil per hectare is lost every year.

A quick vint through Ethiopia's highlands would offer one a sight not only disheartening but also discouraging. In certain instances, it is even difficult to accept the fact that there was any forest since the land, sprawling for thousands of hectares, is virtually mined--no trees, nor any kind of vegetation or even soil and the land was converted into huge gullies, big ditches and barren mountains seemingly without handful of soil.

Personal experiences would perhaps give a modest picture of a situation of a country like Ethiopia which has lost one billion tons of its fertile top soil and was left with deep ditches, barren mountains, recurrent droughts and subsequent famine. It is estimated that the soil washed away by the rushing waters would have been "about 60,000 hectares of one metre deep arable land which could grow food crop enough to feed 20,000 families".

In the highlands, soil erosion is particularly alarming and the fact that 22 million people, 78 per cent of the country's total population, are in those areas makes the problem all the more severe.

Land degradation in Ethiopia has been a long-standing phenomenon. The gradual effects of deforestation were obvious for decades and the solutions were also possible. Only appreciation and political and development will were missing and the subsequent inaction of the former regime has made almost impossible the solutions the present generation is seeking.

Past Practices

In the past, forests were taken for obstacles which stand on the way to extended agriculture. There was hardly public appreciation of the multi-purpose use of forests. When people wanted to shift their farm holdings,

they would cut the standing trees or burn thousands of them and start on fresh land pieces. More regrettable, there was no tradition of replenishment and a tree lost has never been replaced for the following decades. It is therefore no wonder that Ethiopia--once a forest dominated country--is today left with only four per cent of its forestry.

The human land abuse practice coupled with continued livestock pressure on natural vegetation, absence of improved agricultural practice, lack of soil and water conservation measures and heavy rainfall concentrated in 3-4 months finally resulted in perennial soil erosion and gradual desertification.

"Today, more than five million hectares of Ethiopia's agricultural land is badly denuded while the ecological degradation in most parts of the country has reached an irreversible stage".

Agriculturalists, after having cleared natural vegetation, burnt forests and put under cultivation lands traditionally used for pasture, had to move to drier areas and marginal lands where the soil was less fertile, failure of rains more possible and crop shortage likely.

In the recent decades alone, deforestation was more rapid and less controlled that the country's forest resources dwindled from 7.3 per cent to 2.8.

It is estimated that "200,000 hectares of natural forests disappear every year for agriculture while 60,000 hectares of acacia woodlands are being cut for charcoal. [as published] If this trend continues, Ethiopia will be totally deforested in 20 years.

For instance, in the last decades, forests were depleted for selfish interests irrespective of their substantial contributions towards national development. Standing trees were cut either for mechanized farming or for construction purposes by certain individuals. This was carried out unhalted for years at the expense of a major national asset--the forestry. The practice was aggravated because of the fact that in the past there was no serious policy to safeguard and maintain the country's forestry and wildlife.

It is appropriate to mention here that land degradation in Ethiopia is wrongly understood by the public as a new phenomenon. The practice has been there for centuries and its effects were being felt gradually until they reached the present critical stage. The only new things are the appreciation of the problem and the commitment to solve it, no matter how long and how much this takes. (ENA Feature)

CSO: 5000/137

REPERCUSSIONS OF RECURRENT DROUGHT DESCRIBED

Addis Ababa THE ETHIOPIAN HERALD in English 9 Mar 83 pp 2, 5

[Text] In the last decade, drought was so recurrent and severe in Ethiopia that an estimated 200,000 people and hundreds of thousands of cattle and pack animals are feared to have perished. Much worse, it has been maintained that more drought recurrences are most likely to affect Ethiopia in the future.

Besides political injustices, malpractices in different economic sectors of the country were high that today their long-term repercussions are affecting the present generation. For instance, the long-standing land abuse, absence of improved agricultural practices, lack of soil and water conservation measures, human and livestock pressures on vegetation, etc. were responsible for drought and the subsequent famine. Comrade Shimelis Adugna, Relief and Rehabilitation Commissioner and COPWE Central Committee member recalls "people did not care for the forests and there was land abuse practised for centuries".

As a result of such indifferences, Ethiopia, which was mostly covered by forests was left with only 16 per cent of its wood in the 1950s and only 4 per cent at present. Deforestation thus accelerated soil erosion as a result of which one billion tons of soil has been washed away.

The loss of the top fertile soil has rendered unsatisfactory the benefits of the labour of the industrious Ethiopian peasantry. To put it in Comrade Shimelis' words "Ethiopian peasants are hard working. They try to eke a living from the poor lands but their labour is not fruitful and failure of any one of the two rains would easily affect them".

Recurrent drought and their impact on the people have exposed Ethiopians into the unpleasant duty of assistance-seeking. Comrade Shimelis on his part does not approve the continued state of dependence "not that I do not appreciate assistance but I believe it was better if they were self-reliant and productive instead of recipients of aid".

At this very moment, Ethiopia in general and RRC in particular are busy fighting against another natural ordeal which has affected 3.5 million Ethiopians. RRC has been forced to divert its attention from rehabilitation projects underway in different parts of the country to fresh problems which

are now affecting sizeable section of the country's population. According to the Commissioner, if international aid is not forthcoming, the country might as well discontinue its development projects and divert its resources towards relief operations "as we would not allow anyone to die because of lack of assistance".

Comrade Shimelis reiterates that the present drought is as critical as that of the early 1970s. "The only difference is that now there is a committed authority which has been not only following the likelihood of the occurrence of the calamity but has foretold the people at home and outside of the possibility of the problem and launched emergency relief operation to save the lives of those who might have died, otherwise".

Life at Ebinat

Gondar is one of the drought-stricken regions and Libo is one of its worst hit provinces. According to local accounts, Libo was once the best productive province whose agricultural output was enough to feed the entire region of Gondar. But as lately as 10 years ago, signs of drought were apparent and its produce kept on declining until ultimately the failure of the last rains brought about the current drought which affected 87,471 people and killed 55,186 cattle in six months.

Libo has three districts--Kemkem, Ebinat and Belesa--of which the last two are at critical stage. The two districts are almost entirely abandoned.

According to the people in the area, the victims locked their homes and left their birth places when they lost their last hopes of ever getting water in their ponds and wells.

In subdued sobs and grief, the victims themselves tell their stories. "When I discovered that the well I was drawing water from has drained hopelessly I decided to leave my home and join others in the relief camps". In spite of the 8-12 hour walk to fetch water, the people were first reluctant to leave their homes until finally they could not stand the problem any longer.

Finally, they said, they consumed whatever they had saved, sold their cattle, if they had any which survived, and run to the one they always counted on--the Relief and Rehabilitation Commission. The RRC on its part has lived up to the expectations. The Commission found a locality at Ebinat where water is available and launched an immediate relief operation some five months back.

According to Comrade Getachew Ashagre, RRC staff member in Gondar region, at present 3,000 family heads mostly from Belesa, Ebinat and Qualisa sub-district are getting relief aid. Thirty kgs. of grain and five kgs. of supplementary food are given to each family for a month's consumption. Clothings were also distributed among the victims while a mobile medical team presently in a nearby relief camp was expected to arrive shortly. A clinic is meanwhile giving modest service.

Grim Reminder

The Ebinat relief camp is a grim reminder of the 1970s drought except that the present situation is not as desperate as the aftermath of the former when there was no authority to take care of the unfortunate ones. So far, most of the people at Ebinat relief camp are not seriously affected. The women still have their beauty and the men are stout and active. Children, however, display obvious signs of malnutrition, in some instances, very serious ones. Eye disease is common among children, adults and old age people.

The people have erected squats using dry twigs, green leaves and some have covered them with blankets for protection against wind, dust, cold and the scorching sun. Women are busy frying or boiling cereals, spinning, weaving, breast feeding their children or plaiting the hair of friends. Most of them were gloomy and less expressive. Some were gay and seem to have withstood the adversity.

At one spot, a tanker was crowded by a large number of people waiting for their turns to get their daily share of water. They were forbidden to go to the nearby river for fear of possible epidemic outbreak.

At a nearby spot, registration was being carried out with commendable effect. Peasants' associations, disrupted in their former localities, were reactivated at the relief camp, thus coordinating relief operation programmes.

The only complaint of the people was that grain rations were insufficient to take them for one month. This was also admitted by RRC employee of the region who said "we are in no better position but to distribute survival rations for some time until we secure assistance enough to feed millions of victims entirely depending on the RRC". The only request of the people was for medical assistance for a sick child.

A quick look at Ebinat relief camp would help one realize the magnitude of the problem. This camp with only 3,000 family heads is comparatively a minor operation, yet the work undertaken here to host about 15,000 people (a family is multiplied by five) with health problems, food shortage and other complaints is indeed a great challenge. To conduct such relief operations at almost a national level, the RRC would inevitably seek not only local assistance but international aid. The Commission would also appreciate timely response as late response would be as bad as never. (ENA Feature)

CSO: 5000/137

ETHIOPIA

SWITZERLAND DONATES FOR RELIEF EFFORTS

Addis Ababa THE ETHIOPIAN HERALD in English 3 Apr 83 pp 1, 6

[Text] The government of Switzerland yesterday donated 36 tons of whole powder milk to drought-affected people in southern Ethiopia through the World Food Programme.

The donation was handed over on behalf of the World Food Programme by Dr. Kenneth F. King, resident representative of the United Nations Development Programme (UNDP) to Comrade Teshone Wolde-Semaet, First Deputy Commissioner for Relief and Rehabilitation, in the presence of H.E. Ambassador Fraz Birrer of Switzerland to Socialist Ethiopia.

Comrade Teshome thanked the Swiss government for the relief assistance it had given in the past through the World Food Programme and said that the present donation will be sent immediately to drought affected areas in northern Ethiopia.

Dr. King said that the 36 tons pow- Airport yesterday was part of the 120 tons worth 528,000 U.S. dollars which the Swiss government had granted in drought relief aid to Ethiopia through the World Food Programme. He added that the rest of the donation will arrive here shortly.

The Swiss government had earlier contributed 320,000 birr for the purchase of drugs for drought-affected people in Ethiopia through UNICEF and had also channelled further assistance through the international committee of the Red Cross and other relief agencies. The total humanitarian aid being provided by the Swiss government to Ethiopia in 1983 so far amounts to four million birr.

CSO: 5000/152

SOVIET DONATION SECURED FOR RELIEF EFFORTS

Addis Ababa THE ETHIOPIAN HERALD in English 31 Mar 83 pp 1, 3

[Text] The union of Red Cross and Red Crescent Society of the USSR yesterday donated over 6,061 kgs of powder milk and various kinds of medicines to the drought-affected compatriots in the northern regions.

The donation was made in compliance with the recent appeal made by the Ethiopian Red Cross Society.

At a ceremony held at the Ethiopian Red Cross Society's head office, Comrade Abebe Engidasew, chairman of the emergency aid coordinating committee of the Ethiopian Red Cross Society received the donation from Comrade Oleg I. Bocharov, counsellor at the USSR Embassy in Socialist Ethiopia.

The donation consists of 3,400 kgs of powder milk and 2,661 kgs of various medicines.

Speaking after handing over the donation, Comrade Bocharov noted that the Soviet Union's Red Cross and Red Crescent Society made the urgent aid available, after having learnt of the

gravity of the drought following the appeal made by the Ethiopian Red Cross Society. The counsellor added that the drought situation has touched the hearts of the Soviet people and emphasized that the union of the Red Cross and Red Crescent Society of the USSR responded sympathetically due to close relations with the Ethiopian Red Cross Society (ERCS).

Comrade Bocharov also expressed confidence that the existing relations between the societies of the two countries will be further strengthened.

Comrade Abebe Engidasew said that the donation is yet another manifestation of the humanitarian and comradely alliance of the Soviet people with the broad masses of Ethiopia at all times. The donation will serve drought affected people in the regions of Wollo and Gondar, Comrade Abebe stressed.

Other sister societies are also dispatching donations in line with the appeal made by the ERCS. (ENA)

CSO: 5000/152

ETHIOPIA

BRIEFS

AID FOR DROUGHT VICTIMS--Dessie (ENA)--A total of 61,893 birr has been secured towards drought-affected compatriots of Wag province, Wollo region. Of the total, 61,693.34 birr came from government departments, mass organizations and discussion forums while the remaining 200 birr was contributed by Comrade Ambaw Fantaye, a member of the regional AEPA and head of the regional organizational department. [as published] The aid coordinating committee noted that due to natural and man-made calamities, the number of relief aid seekers was increasing. The committee called on all government and mass organizations as well as discussion forums to continue extending a helping hand. In addition, the committee has announced that donors could deposit the amount of money they donate at the Dessie branch of the Commercial Bank in account number 1776. According to the committee, the Save the Children Fund, the regional Red Cross Society and the Relief and Rehabilitation Commission (RRC) were presently making unreserved efforts to help drought-affected compatriots. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 9 Mar 83 p 3]

PRC DONATION--The Ethiopian Red Cross Society yesterday received a donation of more than 40,000 birr from the People's Republic of China. The donation will be channelled towards the Society's relief operation in Gondar and Wollo regions to help drought-affected compatriots. A cheque for the fund was handed over to Comrade Dr. Dawit Zewde, Chairman of the Ethiopian Red Cross Society, by H.E. Ambassador Zhao Yuan of the People's Republic of China to Socialist Ethiopia. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 2 Apr 83 p 1]

DROUGHT IN GAINT--DEBRE TABOR (ENA)--A team led by Comrade Shimelis Adugna, Commissioner for Relief and Rehabilitation, and COPWE Central Committee member, recently inspected the drought situation in Gaint province, Gondar region. The team exchanged views with administrators and representatives of government departments and mass organisations about the assistance rendered to the drought-affected compatriots up to now and the measures that will be taken in the future. In Libbo province, the team inspected relief distribution centres in Ibnat district, and Zuwy Hamusit town, Belessa district. Following the tour of inspection, a discussion was held at the COPWE office of Gondar region based on the findings of the tour regarding the drought problem. The meeting, which was chaired by Comrade Shimelis, was attended by regional first deputy administrators, regional COPWE Committee members, the representative of the regional Relief and Rehabilitation Commission (RRC) and of various government departments. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 2 Apr 83 p 1]

COMMENTARY ON WIDESPREAD DROUGHT PUBLISHED

Nairobi THE NAIROBI TIMES in English 22 Mar 83 p 6

[Editorial: "Changing Weather"]

[Text]

ONE of the most frightening trends about world agriculture is the march of drought through lands which traditionally have been producers of surplus food. Thus, drought conditions have threatened agriculture in Australia, South Africa, Zimbabwe and some parts of America. Elsewhere the weather is playing havoc with farmers, with bitter cold winters and storms ravaging the western part of North America and Central EuroAsia. Obviously, the world's climate is undergoing changes which are difficult to predict but they should serve as a warning to agriculturalists to take precautionary measures about the future. Here in Kenya, we have been lucky to have had a good harvest due to good rains, but our neighbours to the north in Ethiopia are experiencing terrible drought conditions. Tanzania to the south is having some problems too. We could well be next in line. All the more reason for greater efforts to be made first to save as much of the food in the stores and in the fields as possible and then to encourage farmers to plant as much food in this coming season as possible. The government agencies responsible for providing farm inputs should be particularly careful about meeting the needs of farmers. This is not the time, for instance, for considerations of private individual gain to interfere with the provision of fertiliser to farmers. The kind of criminal performance which the Coffee Board appears to have indulged in through the importation of worthless fertiliser should never be allowed to happen. Indeed, those responsible for such gross mismanagement of public resources should be brought to book.

CROP FAILURES FEARED IN SOME PARTS OF NATAL

Johannesburg THE CITIZEN in English 6 Apr 83 p 8

[Text]

DURBAN. — The Department of Agriculture has released a shock report predicting massive crop failures in Natal, with a total write-off in some areas because of the drought, and gloomy prospects for winter.

At the same time farmers are experiencing crop damage from monkeys because of a lack of their natural food, army worms have broken out in the Mkuzi-Hluhluwe areas, and sugar cane has been struck by mosaic, particularly in the higher-lying areas.

If no rain falls soon, citrus-packing sheds will close as crops are expected to be 66 percent lower than average, while dairy farmers in particular have been hard hit.

Grain yields in Vryheid, Ngqushwa and Paulpietersburg are expected to be only 10 percent with most farmers turning their ruined crops into silage.

The potato crop at Utrecht and Newcastle is expected to be only one-third of normal, while in southern Natal serious problems are being felt in vegetable production.

particularly along the Ixopo River.

Mount Currie farmers expect the maize crop to be a total write-off.

In Dundee, however, the maize yield should be slightly better than last year, when it was also severely affected by drought, while in Kliprivier and Bergville maize yields are expected to vary between 10 and 50 percent of normal.

One-quarter

The Tala Valley and Camperdown vegetable production areas have been limited to 10 hours irrigation a week, so crops are suffering badly and yields will be cut to a quarter.

Potato producers at Winterton have had severe crop damage from scorching. Umtioti and Kranckop cabbage-producers have established only very small areas because of a lack of water.

Midlands maize producers expect severe crop losses from minimal to 50 percent of the average.

Winter pastures and crops have been planted, but unless good rains fall soon those, too, will be drastically cut.

The seed maize crop in the Umtioti and Kranckop areas is expected to be halved, while in the coastal sub-region both the quantity and quality of vegetable production has been severely cut.

The coastal sugar cane crop has also dropped, with losses varying from area to area, while the cotton crop has suffered badly.

"The general situation in the southern sub-region is entirely dependent on immediate heavy rains. Unless these fall, the entire area will have critical conditions with very bleak prospects for the coming winter," the Government report said.

"The situation in northern Natal is serious. The coming winter will be difficult with no reserve water supplies and very little grazing available. Good rains are urgently required to recharge winter supplies.

"In the midlands sub-region, the situation is also critical and even further water restrictions are expected. The outlook for the coming winter is bleak.

"The coastal sub-region also needs urgent rains. The prospect for winter and spring are bleak," said the report. — Sapa.

CSO: 5000/151

MAJOR WATER CRISIS LOOMS AS DAMS DRY OUT

Johannesburg THE CITIZEN in English 9 Apr 83 p 5

[Article by Fanie Hattingh]

[Text]

MAJOR dams throughout the country are steadily running dry as the current drought continues — and the danger of a major water crisis is becoming a greater possibility with every passing day.

A survey conducted yesterday points to a single overriding fact: barring the extremely unlikely event of soaking winter rains, the country will be plunged into the most devastating water crisis in living memory by September.

Preparations are in progress to handle the crisis.

These include:

- Plans by Escom to rely less on modern power stations that require large quantities of water for cooling.
- More stringent water restriction measures.

A spokesman for the Department of Environmental Affairs, Mr Anton Steyn, said yesterday that the fact could not be ignored that the water levels of most of the dams in the country were dropping.

"It is also impossible to ignore the fact that, with

the exception of showers here and there, we are not getting sufficient rain to keep the dams from running dry. If it doesn't rain soon many of the dams will literally be dry by September."

Figures released by the department show that the level of most dams, most of them already only half as full as during the same period last year, have dropped by between 5 and 10 percent during the past month.

In the Transvaal the Vaal Dam has dropped by 6 percent to 35 percent, the Hartebeespoort Dam by 7 percent to 35 percent of its capacity, the Fanie Botha Dam by 4 percent to 43 percent, the Loskop Dam by 5 to 21. Bloemhof Dam is down from 16 percent to 11 percent.

Figures for other dams (with last month's figure in brackets) are as follows: H F Verwoerd Dam 64 (65); P K le Roux Dam 63 (72); Groter Brandvlei Dam 20 (25); Albert Falls Dam 9 (9); Midmar Dam 30 (38); Nagel Dam 31 (38).

The total capacity of all the country's dams now stand at 40 percent.

A spokesman for the Electricity Supply Com-

mission (Ecom) said yesterday that the commission was about to present contingency plans to the Minister of Mineral and Energy Affairs, Mr P C T du Plessis.

He was reluctant to divulge details, but it is learned that the plans include shifting electricity generation from modern power stations, which require large quantities of water for cooling, to older plants that are far more expensive to run but require less water.

Most of Ecom's 25 power stations are coal burning and require water for cooling. The four power stations on the Komati River, for instance, are likely to be without water within the next few weeks.

Meanwhile, water restrictions announced on the Witwatersrand and in Pretoria and other towns, appear not to have had the desired effect.

"Perhaps it's too early to judge, but the effect of the restrictions so far has been disappointing," the

tions than those in force at present would become inevitable. — Sapa.

chairman of the Rand Water Board, Mr L D Hobbs, said yesterday.

Mr Hobbs said the board was considering more drastic restrictions, but could only really formulate such restrictions once the effect of the present curbs were known. In the event of it not raining soon, much more far-reaching restric-

CSC : 5000/153

MANY FARMERS 'STILL FACE RUIN DESPITE GOVERNMENT AID'

Johannesburg THE CITIZEN in English 7 Apr 83 p 5

[Article by Keith Abendroth]

[Text]

THE Government's drought-relief plans — announced two weeks ago by the Prime Minister — have come too late to save many farmers from financial ruin.

Mr Flip du Plooy, secretary of the Transvaal Agricultural Union, said in an interview yesterday organised agriculture was grateful for the help which had been promised and was now forthcoming.

But for many farmers it was too little and too late.

"The real tragedy is that I don't think the truth has yet hit home of how serious the drought really is and that its ravages are far greater than most people think," he said.

Feedback reaching the union was of farmers who had already been forced to abandon their farms to seek work elsewhere, many of them at provincial roads department projects.

"Efforts to sell their farms have failed," he said.

The Government's drought-relief measures could help stave off ruin for many farmers, but for others it was "the end".

Nationwide rains could help many farmers to bite fast and see the winter through — but pessimism was setting in.

According to Mr I S Geldenhuys, Chief Director (marketing) of the African farmers' association, in the Battle of the Berg suggestion that the price of sheep's liver taken up no more than 10 years to

million in 1982, dropping thereafter to R1 988-million last year.

If the net income from farming was expressed as a percentage of the gross value of agricultural production, the figure of 38 percent maintained between 1971 and 1981 had dropped to 25-percent last year.

"Figures are not optimistic and reflect the penury of the farmer," he said.

Costs had skyrocketed in the past decade — by 333 percent this year since 1972, compared with an increase of 237 percent in the prices of agricultural products, he said.

SOUTH AFRICA

BRIEFS

CISKEI CATTLE DYING--FIVE cattle per village are dying each day in the Ciskei, and farmers in the region are facing their worst drought on record. Most small dams for stock have dried up completely. Conditions are so serious that the Fort Cox Agricultural College has decided to sell all its stock. The sale will take place on April 12 at the college, under the auspices of the Ciskei Livestock Board. About 51 cattle, 157 sheep and 100 boergoats will be offered. Two hundred donkeys will be on sale in the Middledrift district on April 13 at the Debeneck Farmer's Training Centre and at Annshaw. [Text] [Johannesburg THE CITIZEN in English 9 Apr 83 p 8]

VRYHEID PIPELINE DRY--VRYHEID--An expensive 4 km pipeline from the Klipfontein Dam to Vryheid had not been used since it was completed last year because it is way above the water level of the dam, Mr Gerald Olckers, Town Clerk of Vryheid, said yesterday. Mr Olckers said the water was only about 2 m deep at the dam wall and would have to rise another 6 m before it could be pumped through the pipeline to the surrounding drought stricken area. No water had been drawn from the dam. At the present rate of consumption, the Grootgewaag Dam, which supplied the area, would provide water only until July. [Text] [Johannesburg THE CITIZEN in English 9 Apr 83 p 10]

CSO: 5000/153

DROUGHT REACHES 'DISASTER' STAGE IN MANZINI DISTRICT

Mbabane THE SWAZI OBSERVER in English 12 Mar 83 p 4

[Text]

THE survival of hundreds of families and the whole farming community in the country is now at stake as the drought intensifies by the day. The drought has reached "disaster" proportions in parts of the Manzini district.

Certain areas are actually hit hard forcing the rural folk to trek to the urban areas in search for food. In some places in the Manzini district, the position is little short of horrific. And still the sun beats on...

JAH MATHIBA and MENDA MATHENWA, who last week visited some of the areas hit hard in Manzini district came up with this report

Maize fields at Nhambeni, Leshibou, Gundwini, Engeulwini and Matutsezi lie in waste, brown red ground, with what could have been crops once, shrivelled and barely visible beneath overgrown weeds... the crop never made it to bear fruit, it dried at the stage when it flowered.

In many areas in the district, cattle have been let loose to graze in the fields a sight usually reserved for winter time after crops have been harvested. But this year, it is different, and the effects are yet to be felt in

the urban industrial area where hundreds are expected to flock in search of work and food.

Even now, some homesteads lie abandoned, their owners left to seek other forms of livelihood, possibly work in towns; there is little point in waiting for the winter month which will bring with it hunger and possibly the worst drought yet experienced in the district.

Standing inside an acre of desolate dry field of white maize stalks/twisted and scorched by the sun, a woman wondered around what lay ahead for her family of nine.

The area is Mpaphati under Chief Hhendeleka of Kaphunga, where Mrs Simelane stood with her children surveying the destruction caused by the persistent scorching sun and lack of rain for so long. When asked about the drought, she said that she had not had proper rain since im-

mediately after Christmas.

"We planted soon after the mourning period, but the sun never allowed our crop to grow. We have been watching in bewilderment as the crops dried before our eyes. Even the crops that were planted later than ours never survived," added Mrs Simelane, whose husband she said was working on a nearby farm as a labourer.

"He doesn't make much money," she said, hugging a small girl close to her, "and we are wondering what to do. Are you sent by the Government, is it going to help us? she enquired from us.

The drought is not only affecting crops. What used to be landmarks, streams where the people fetched their water and bigger rivers, are today white roads of sand snaking downwards into the lowveld.

This year, too, the cotton crop was at its worst. The cotton crop which normally stands the dry conditions is again this year a disaster.

Teachers at the only primary school in the area, Mpaphati Primary School, said the situation was so bad that even the higher plans of Kaphunga which are always considered to be the granary of the lower lying areas, was also badly hit this year.

The teachers, Miss Khesaya Lukhele and Busisiwe Lukhele said the area was so hard hit this year that even the traditional melon (emajoti) did not survive. "People are going to die of hunger here," they said.

Extension officers from the Minister of Agriculture and Cooperatives are sometimes seen in the area advising farmers. Also regular visitors are extension officers from

the banks, an ominous sign that there may be even less credit available next year to farmers from the banks.

The foreman of a farm near Sidvokodvo owned by a Swazi farmer, a Mr Dlamini, said his farm would have the worst trouble this year. The yield, from

whatever would be salvaged, will not be enough to cover expenses in payment of labour.

But on another farm, one of two owned by white Swazi farmers only a few kilometres from the Dlamini farm, cotton was green beyond any expectation.

Asked how he managed under such dry conditions, the farmer who spoke perfect siSwati said: "It's none of The Observer's business. My farming secrets are my private business and none of yours."

But, what is evident now, is that if it rains or

how much it does, it will be a contribution too little late on behalf of nature. What the rest of us can expect, is an influx of hungry people from the rural areas to town, and the beginning of yet another cycle of the rural urban migration.

CSO: 5000/140

TOGO

BRIEFS

VILLAGES DESTROYED--Attive, Attoeta and Adjegankope villages were ravaged by fires ignited through negligence in the afternoon of 3 March. At Attive, the village hardest hit, the disaster was the result of a badly set brush fire near Agome, a neighboring area, that because of wind spread to a palm grove then onto the roofs of houses. The fire consumed everything in its path; the result was one killed, 300 huts burned down, grain stores burned to ashes, and animals destroyed. At Adjegankope, the fire resulted from a kitchen fire that had not been put out after meal preparation. The flames destroyed 24 huts and some grain stores. At Attoeta, there was less damage. The fire, whose cause is unknown, reportedly destroyed six huts and a grain store. The Lacs area prefect and the police visited the affected areas. /Text/ /Lome LA NOUVELLE MARCHE in French 8 Mar 83 p 3/ 9920

CSO: 5000/141

SAMARA RIVER POLLUTION PROBLEM EXAMINED

Moscow PRAVDA in Russian 16 Jan 83 p 2

[Letter by K. Pekhotin, public inspector of the protection of nature (Dnepropetrovsk oblast), in the column "Letters to PRAVDA": "Help the River"]

[text] Just recently the Samara River was a beautiful, high river with an abundance of fish. In recent years everything has changed.

In the center of Novomoskovsk more than 20 years ago the Dnepropetrovsk River Port built a bulk materials warehouse. In the summer the thick dust, which covers and contaminates everything around, makes life intolerable for the residents of the settlement.

From early spring to late autumn motorboats plane the river. There are more than 5,000 of them in Novomoskovsk and over 30,000 in Dnepropetrovsk. A trail of gasoline stretches over the water behind each one. The vast thickets of reeds on the flood plains and along the entire Samara the best food for the fish have become scarce due to this.

The Pavlogradzkiy Association is discharging untreated mine waters into a tributary of the Samara, the Volchya River.

City purification plants are under construction in Novomoskovsk for the sixth year. The work should be completed by 1984. But in this time only half of the estimated allocations have been assimilated. The general contractor--the Dneprotyazhstroy Trust--is unjustifiably dragging out the construction.

A "quiet assault" on the Samara is also being made on the part of holiday hotels, holiday homes, tourist centers and Pioneer camps, which are located in the conservation zone of the river. Their lack of treatment plants and a sewer system is having the result that sewage is entering the river and its tributaries.

Water erosion is also affecting the fate of the Samara. In all 32,000 hectares of plowland, which have been damaged by this phenomenon, have been recorded by the control service of the Novomoskovskiy Rayon Agricultural Administration. In many cases erosion is a result of the improper tilling of the ground. In violation of the law, which prohibits land to be plowed up closer than 50 m from the edge of the water, the riverside farms of the rayon are cultivating the shore sections up to

the river itself. The Samarskiy Kolkhoz, the Sovkhoz imeni Zhdanov and the Novomoskovsk Sovkhoz-Tekhnikum are hauling manure to temporary field pits. They are located, as a rule, along slopes, in gullies and ravines. Snow melt water and summer downpours carry mudflows to the river, and with them manure as well.

All this has had the result that the self-cleaning of the river bed during the high water period has ceased in the river. The once high tributaries, the Kilchen and Bogatenka, have turned into streams with stagnant water.

7807

CSO: 5000/64

CITY DWELLERS VOICE ENVIRONMENTAL CONCERNS

Moscow SOVETSKAYA ROSSIYA in Russian 15 Mar 83 p 2

Article by M. Krushinskiy: "Clean Air on the Street"

Text When there is talk about environmental protection, people most frequently recall the forests, which must be protected from overcutting, or the major lakes and great rivers with their incalculable, but alas so very fragile fish resources. But the modern city presents no less material for ecological concern.

How can we reduce the inevitable cost of scientific-technical progress, one of the manifestations of which is urbanization?

This question directly affects the interests of millions: in the Russian Federation, for example, an average of 7 out of every 10 people are city dwellers. For this reason a series of materials on the subjects of urban management and environmental protection in the major cities, which we published over the course of a year, aroused concerned responses from readers. A majority of the letters are concrete: people are not simply discussing ways to develop civilization; they are sharing their concerns, they are making claims against the managers of public services, industrial enterprises as well as against us, the newspaper people.

"We have read your lead article ("Man and the City", 5 February 1982) and are very surprised: What are the facts on the basis of which the author has misled the readers, talking about improvements in the air quality in Krasnoyarsk," write Comrades Iloicheva, Marchevskaya, Kozina, Belykh, Zakharchenko and other residents of this city (a total of 11 signatures) in their letter to the editor. They complain that the atmosphere in the area of their enterprise in no way supports our observation of an "excellent trend" toward improvement. Similar letters have come from V.M. Oseled'ko in Groznyy, Kozhykho in Krasnodar, and P. Shishlov in Novosibirsk in response to the article "The Price of Clean Air" (23 February 1982). The latter complains that the slurry unit on Stanislavskiy Street becomes a source of real sand storms in the summer. A collective letter from the suburban Moscow city of Chekhov says that even the snow in the area of the local regenerator plant acquires the color of soot.

The easiest thing to do would be to answer these people by saying: "Be patient: in the nation, the republic or your oblast, matters really are improving." However, they would not feel any better for hearing this. They are not interested in hearing about things "in general," they want to hear about things "in particular." A positive trend is extremely small comfort when the wastes of a nearby roofing felt plant are being incinerated and the soot is flying in your open window (this was related to us in a letter from readers in Murom, Vladimir Oblast). For this reason we would very much like to respond to this published material by obtaining reports from the managers of the respective agencies and sanitation services in these cities concerning the adoption of specific and effective measures.

Nor is it any easier at the present for the residents of certain blocks in Rostov-na-Donu to learn that a great deal of work is being done to improve the water supply. Their response to an article "Thirst on the Banks of the River" (22 September) is clear and sharp: "For how long will we continue to have water coming into our homes only at night?" The question, it must be admitted, is fair, and the sharpness of the readers is justified. We telephoned V.I. Golovtsov, the first secretary of the Rostov Gorkom of the party.

"Indeed," he said, "the situation in the Sovetskij and Zheleznodorozhnyy Rayons is still not favorable. But a great deal is being done. We think that the situation will improve sharply in the current year."

Not all problems of city services and daily life require the intervention of the organs of authority or major financial expenditures. Much depends on the citizens themselves. Just think how many fewer complaints there would be if every owner of a radio, telephone or tape recorder learned that excessively loud noise which disturbs the neighbors is no less of a risk factor in environmental pollution than smoke from factory chimneys! Only a low level of ecological awareness on the part of certain citizens can explain the situation which P.K. Amanov from the city Yefremov in Tula Oblast describes: Housewives beat the dust "out of their carpets and sackcloths" and the playground of Kindergarten No 2 is right next door. Punitive measures do not help: patient, educational work with the people is needed. The suggestion by Muscovite A.F. Timchenko is hardly acceptable: "Count all the smokers," he writes "and at a specific time force them to clean up the streets and squares where butts and other garbage collect." But it is another matter to instill respect in each of us for the work of someone else. This is a fair demand put forward by V. Trushin and others of our readers who responded to the article "About the Broom and the Barrow" (9 April).

Many people note that people must be helped to learn not only through words but also through deeds. Can people on the street, for example, be expected not to litter when a long street has only one or two garbage cans? After all, one can't put those ice cream wrappings or those same cigarette butts in your pocket. Or take the problem of lawns. Certainly those who are accustomed to walking on them as if on their own personal property deserve condemnation. But what are people to do if newly-seeded grass,

in front of a store for example, forces them to make a detour of a good 100 meters? Far-sighted landscape gardeners try to prevent this kind of conflict situation. Before seeding, they look at where people would naturally make a path. Convenient asphalt paths are then laid in these places. That is how it has been done, for example, in Smolensk: the experience there was described by us on 18 February of this year in an article "What Grows on Asphalt?"

In general, prohibitions of various kinds are not very effective in solving the complex problems of the modern city. Some people interpreted the leading article "Man and the Automobile," which was printed on 1 October, as the beginning of a unique "campaign" against the owners of private cars: accordingly they suggest an immediate ban on the sale of cars for personal use and a virtual prohibition on the use of private cars within the city boundaries. Others (car owners) sound the alarm: How could you, they say, when we have acquired these vehicles by the sweat of our brows, etc. Let us hasten to calm them down: no one has any intention of infringing on their property. But the claims of N.Ye. Chubikov from the city of Engels and Obratzsov and V. Nikiforov from Kemerovo that the car becomes at times not a means but an end in itself, a "toy for adults," which is purchased without real necessity and only for the sake of doubtful "prestige," are not without grounds. And K.A. Artem'yev from Voronezh, who is now a pensioner, but who was recently the first deputy chairman of the oblast planning commission, touches on the moral side of the problem in his letter. Along with other readers, he points out the "undemocratic" nature of this type of transportation, which creates comfort for the few and inconvenience for the majority.

But, we repeat, the solution does not lie in prohibitions, although certain carefully thought out limitations could possibly help to resolve the issue. It is more difficult but also far more important to convince people that in many cases public transport is much more reliable than private transport and that the good old bicycle is capable not only of improving a person's health, but also of saving time in a large city. But once again this requires not just words alone, but deeds as well: the improvement of all forms of public transport and the creation of elementary conditions for enthusiasts of the "pedal alternative," factors which were correctly pointed out by V. Tolstogzov from Ulyanovsk, G.V. Smirnov from Moscow, and P.M. Velichko from Kuybyshev. Reader A. Sukhalev proposes the re-establishment of a system for renting passenger vehicles: this would reduce their numbers on city streets and simplify the extremely difficult problem of garages. A Muscovite, A.S. Krasinskiy, shares his own invention: an original inflatable tent for a car, an invention which is capable of relieving to a certain degree the acute "garage shortage."

The editor's mailbag provides evidence that the problems of the modern city--given all their diversity and complexity--can and should be solved in our society. This requires energetic efforts on the part of party and soviet organs, employees of the State Public Health Inspectorate, city builders engineers and economic planners. The editorial board intends to hold in the near future a "round table" discussion with participation by specialists representing the concerned agencies. We hope that they once they have exchanged opinions, they will come forward with concrete proposals which will become a contribution to the resolution of the problem of "Man and the City."

MEASURES TO PROMOTE CLEAN WATER IN BELORUSSIA

Minsk SOVETSKAYA BELORUSSIYA in Russian 1 Feb 83 p 4

[Article by V. Potemkin, chief of the Water Resources and Atmospheric Protection Department, BeSSR State Committee for the Protection of Nature: "Care for Water Resources"]

[Text] A republic inspection has been announced for the rational utilization of water resources and the prevention of pollution of rivers and other reservoirs by sewage and industrial and domestic wastes at enterprises, production associations, industrial centers and in cities. The inspection will be conducted by the BeSSR State Committee for the Protection of Nature, the Presidium of the Republic Council of the Belorussian Society for the Protection of Nature, the BeSSR Ministry of Housing and Municipal Services, the BeSSR Main Production Administration of Power and Electrification and the Presidium of the Belorussian Republic Council of Scientific Technical Societies. The goal of the measure is to mobilize a broad spectrum of workers and social organizations to fulfill the decisions of the 26th CPSU Congress and 24th Belorussian CP Congress and the resolutions of the party and state on questions of environmental protection. The objective of the inspection is to intensify further the organizational work of enterprise and social-organization supervisors for a more rational utilization of water in production, for the improvement of technological processes, for the broad introduction of a circulating and recycling water supply, the purification of sewage, the improvement of the efficiency of operation of intrashop, general-factory and city purification equipment and the prevention of river and reservoir pollution by industrial discharges and industrial and domestic wastes.

Collectives of enterprises, production associations, industrial centers and the republic's cities may participate in the inspection.

The results will be tallied on 15 February 1984.

The winners will be awarded prizes. For cities and large industrial associations there have been instituted: one first prize of 1,500 rubles, two second prizes of 1,000 rubles each and three third prizes of 500 rubles each. Two first prizes of 750 rubles each, four second prizes of 500 rubles each and six third prizes of 300 rubles each have been established for enterprises and organizations.

The winners of the inspection will be awarded with honorary citations from the BeSSR State Committee for the Protection of Nature, the BeSSR Ministry of Housing and Municipal Services and the BeSSR Main Production Administration of Power and Electrification, diplomas from the Belorussian Republic Council of Scientific Technical Societies and citations and diplomas from the Republic Council of the Belorussian Society for the Protection of Nature.

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CSO: 5000/80

BRIEFS

VOLGA POLLUTION ABATEMENT--An extensive set of measures on the strengthening of the protection against contaminants of the large water basins located on the Volga: the Rybinsk, Corkiy and Volgograd reservoirs, has been elaborated at the Leningrad State Institute for Planning in River Transportation. It encompasses passenger and cargo ships, dredging vessels and the installation in the littoral zone of special wharves and biological purification stations. "Particular attention in our developments, which have already begun to be implemented," Chief Project Engineer Z. M. Zaytseva said, "is being devoted to the prevention of contamination from petroleum products. For this purpose tankers are being fitted out with double sides and bottoms and automatic warning systems of the leak of petroleum products during their loading and unloading. The immediate installation of floating barriers and the use of special petroleum collecting ships are envisaged in case emergencies occur." All ships for transporting powdered freight, including mineral fertilizers, should without fail be fitted with a closed pneumatic system of conveyance from the holds. Stations for the biological treatment of household waste water and sewage and a unit for the burning of dry garbage are being installed on modern four- and three-deck river liners and combined ships of the "river-sea" type. On other vessels and tugboats, as well as self-propelled barges containers and tanks are envisaged for their collection. [By V. Ivanov] [Text] [Leningrad LENINGRADSKAYA PRAVDA in Russian 25 Dec 82 p 4] 7807

WATER QUALITY MONITOR--Underwater flora and fauna feel normal only in the case of a specific ratio of the different components of water. Specialists are studying the cleanliness of rivers and lakes into order to give the danger signal on time and to prevent the upsetting of the equilibrium. Samples, which are sent to the laboratory for analysis, are usually taken for the determination of the degree of pollution and the chemical composition of water. The unstable and volatile components have to be preserved. All this takes a long time, moreover, the results are characterized by errors. It has become possible to obtain such necessary data promptly owing to the method of polarographic logging. It was developed at the Chair of Geophysical Methods of the Exploration and Prospecting of Mineral Deposits of the Institute of Mining imeni G. V. Plekhanov. First of all it is intended for the geological service, although it can also be used in determining the purity of liquids, particularly the water of rivers and lakes. The sensor is lowered into the water, and the instrument records a polarogram, in accordance with which the components of the chemical composition of the water are determined. Specialists obtain information directly at the time of measurement. Last summer a group of staff members of the Institute of Mining jointly with the Leningrad State Institute for the Planning of Water Management and Reclamation Construction studied the Vuoksa River. The

instruments showed: the content of chlorine and oxygen is normal. The discharges of industrial and agricultural complexes do not substantially influence the composition of the water. The device was operated not only in rivers, but also the Gulf of Finland. The specialists were faced with a responsible task: to determine the structure of that portion of it, which will be enclosed by protective structures. It will be possible to compare these data with the results of subsequent studies and to keep track of the changes of the composition of the water. In spite of the fact that the polarographic logging equipment received a bronze medal of the Exhibition of USSR National Economic Achievements in 1982, the staff members of the Institute of Mining are continuing to work on its improvement. [By A. Slobozhan] [Text] [Leningrad LENINGRADSKAYA PRAVDA in Russian 25 Feb 83 p 2] 7807

GULF OF FINLAND MONITORED--How are you, Gulf of Finland? Automatic instruments, which were installed by Leningrad hydrologists, have just taken up a vigilant watch over the ice shell of the Gulf of Finland. They continuously transmit the characteristics of the flow conditions, the temperature and the chemical composition of the water. "These data are necessary for the checking of the mathematical models of the 'Lake Ladoga--Seva--Gulf of Finland' system, which have been compiled at the scientific centers of Leningrad," Ye. Fridrik, director of the maritime detachment of the Northwestern Hydrometeorology and Environmental Control Administration, related. "A unified system of the monitoring and control of water quality on a vast water area, with the boundaries of which Leningrad is located, is being developed here for the first time." At present 14 academic and sectorial scientific centers and the industrial enterprises of the city are making a careful study of the ecological equilibrium in the eastern section of the Gulf of Finland. At the same time as the installation of research robots under the ice glaciologists, chemists and physicians set out on Buran snowmobiles on expeditions over the ice of the gulf. High-altitude measurements of the parameters of the aqueous medium are being made from aboard an airplane--the Il-14 flying laboratory. The comprehensive study of the eastern section of the Gulf of Finland is being conducted in connection with the construction of structures for the protection of Leningrad against floods. The work of the hydrologists is also a national contribution of the USSR to the International Convention on the Protection of the Marine Environment of the Baltic Sea. In the photograph: the new tanks [Photo not reproduced]. [Text] [Moscow PRAVDA in Russian 13 Feb 83 p 2] 7807

REFINERY POLLUTION CONTROL MEASURES--Khabarovsk, 4 Feb--Craylings will be able to live in the waste water which the petroleum refinery will return to the Amur. The specialists, who are preparing a powerful pilot industrial plant for start-up, believe this. It will treat daily with ozone nearly 4,000 m³ of refinery effluents, which were first passed through other treatment plants. The water will be returned to the river with the same purity as it arrived at the enterprise. The flame of the gas flares, which burn in vain around the clock, will also be greatly reduced. Start-up and adjustment work is in full swing at the installation for the collection of flare gases. The liquified condensate obtained here will be used for the production of fuel, while the vapors will enter the fuel system. This will yield an annual saving of 100,000 rubles. At present at the refinery they are preparing for the construction of tanks with floating covers, which prevent air pollution. In 2 years alone the petroleum industry workers have spent about 1 million rubles on the construction of conservation projects. The inventors and rationalizers of the enterprise are doing much for the protection of nature. Creative brigades made up of workers and specialists are working successfully here. While improving the

to mineralization. The impulsive Senate are developing the problem of the water pollution problem extraordinarily fast. (Text) TASS. 1983, 16 feb 83 p 10

At the 1983 hydrological expanded meeting of the section of the Azerbaijan Academy of Agricultural Sciences (meni V. I. Lenin on the theme "The protection of river waters against contamination by drainage and waste waters," was held in Baku. The work of the section took place under the chairmanship of I. S. Kostyuk, the director of the Azerbaijan Academy of Agricultural Sciences (meni V. I. Lenin) and the director of Azerbaijan Academy of Sciences, who told about the aspects of the problem of protection of purity of the waters of rivers and water bodies and the basic directions of its solution. Delegations of the scientific and planning organizations of the Academy and the country: the Turkmen State Institute for the Planning of Water Management and Reclamation Construction, the Institute of Hydrology and Geology of the Turkmen SSR Ministry of Irrigation, the Ministry of Land Reclamation and Water Resources, the Institute of Soil Sciences and Photosynthesis of the USSR Academy of Sciences, the Institute of Soil Sciences (meni V. V. Dukochayev, the Stavropol Scientific Research Institute of Hydrology and Reclamation and others, took part in the work of the expanded meeting. A number of recommendations were drawn up, measures on the drive for the cleanliness of water bodies were outlined. They in the strict biological and chemical monitoring of drainage and waste waters, the establishment of the maximum magnitudes of their contamination and the volumes of drainage, the decrease of the inefficient consumption of irrigation water in the course of teaching operations and vegetative waterings, the designing and construction of water collecting mains and others. The conducting of a number of studies in the area of soil science, reclamation, irrigated farming, biogeochemistry, medicine, biology and zoology, which make it possible to study this important problem more deeply, is also planned. The implementation of the outlined measures naturally will serve the cause of environmental protection and the increase of the water supply of irrigated territories, but will also make it possible to increase the productivity of agricultural production and to successfully accomplish the task of the food problem. (By Candidate of Agricultural Sciences D. Sheripov, deputy director of the Institute of Deserts of the Turkmen SSR Academy of Sciences, and Candidate of Agricultural Sciences V. Gafurov, head of the Sector of Soil Hydrology of the Turkmen Scientific Research Institute of Hydrology and Reclamation) [Text] Azerbaidzhan RASSR VAYA TASSA in Russian 19 feb 83 p 4 7807

1983-02-19

DRINKING WATER IN MANY AREAS POLLUTED BY NITRATES

Copenhagen HERLINGSKE TIDENDE in Danish 8 Apr 83 p

[Article by Per Sætre and Dan Axell]

Text: Ten waterworks in the metropolitan area supply water containing nitrates. A total of two hundred waterworks across the country are now under the scrutiny of the Environmental Protection Agency.

The department of environment of the Metropolitan Council yesterday presented its report on the ten waterworks which supply water containing nitrates. The maximum permissible value in drinking water is 50 milligrams of nitrate per liter. Above that value, water is dangerous to the health of infants. They may develop choking fits when nitrate in their stomachs is converted into nitrite and enters their blood stream. Agriculture is also familiar with the problem, in that it affects young pigs.

The ten waterworks are three at Høje Tåstrup--Sengeløse west, Flængvejen and Sengeløse (7.1 milligrams). In addition, Høje at Ledøje-Smorup, Køvebakken at Gillinge, Højeåriene and Svogerslev at Roskilde, Møllemarken at Vallø, Dyrehøje and Vindeby Town at Frederiksverk, the latter having reached the level of 11 milligrams per liter.

Jørgen K. Till, city engineer: "We are looking for the source of pollution in pipelines, in wells which have been filled in, in waste water and with farmers, but the problem has not been solved. Till now, the medical officer of health has such no reason to warn against use of the water."

Within the Metropolitan Council, the chairman of the environment committee, Finn Christensen (Conservative Party) says: "It is the duty of the municipalities to supervise the waterworks and to intervene where needed, and the Metropolitan Council will now ask the municipalities in which the ten waterworks are located to state what efforts are being made to check the polluted water."

H. Overgaard Hansen, hydrologist of the Environmental Protection Agency, states that the municipalities must seek exemption from the country when a waterworks exceeds the limit permitted, and the medical officer of health must intervene. Apparently, this has not happened in all of the cases, and only 3% of the 200 waterworks have been granted exemption.

nitrate pollution is worst in Vestsjælland, where more than 5 percent of all drinking water exceeds the highest permissible value. Drinking waterworks are blanched. That corresponds to one out of every seven waterworks, pumping up more than 10,000 cubic meters of drinking water annually. A total of 2 percent of the water supply of the entire country are thus affected.

The counties of Sjælland, North Zealand, and Århus also have nitrate problems. Fynsland, however, does not have the problem.

A nation-wide survey of the nitrate content of drinking water has not yet been finalized, but a report on the matter is expected in the early part of the summer.

The Environmental Protection Agency states that the problem, definitely, is worst in areas where the subsoil water is not covered by a stratum of clay of certain thickness--especially in the moorland plains of west Jutland.

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ELECTRICAL CONDENSERS CONTAINING PCB TO BE REPLACED

Helsinki HELSINKIN SANOMAT in Finnish 18 Mar 83 p 15

[Text] Rather large condensers containing PCB — there are about 110,000 of them — will disappear from Finland during the first half of the 1990's if the investigating committee's recommendation, published in its report on Thursday, is implemented: Condensers older than 15 years will have to be replaced.

Aside from the condensers, there is PCB, which forms superhazardous compounds, in some 250 transformers. Furthermore, PCB is found in condensers in household appliances like washing machines, mangles and fireplace fans, about which "not much is really known," according to the report.

It is estimated that there are 250 tons of PCB in the transformers alone, and the total weight of these transformers with oil is about 630 tons. There is an average of 1,000 kg of oil in one transformer and in the event of a fire extremely dangerous compounds are produced by the oil. Serious PCB transformer damages have probably not occurred in Finland or Sweden.

The condenser batteries contain about 1,400 tons of PCB. The report estimates that there are evidently millions of small private transformers containing PCB and they contain several hundred tons of PCB.

Aroused in the Fall

The dangers of PCB toxins aroused the attention of the public last fall following certain accidents. In August, for example, there was a condenser explosion at the Enso-Gutzeit plant in Kaukopaa. The plant suffered losses amounting to a million due to the shutdown and cleanup and the endangered workers are still being examined.

At the end of August the chief labor organizations and the Accident Insurance Companies Association appointed the committee that has now published its report. Prof Pekka Salminen of the VTT's [State Technical Research Center] electro-technical laboratory was invited to be chairman.

According to the Fire Department gazette, officials have known about the dangers of PCB for at least 12 years. According to what was said on Thursday, the information had not reached all quarters.

In the course of the fall, however, people were aroused: Directives were issued, they began to monitor PCB equipment. And the investigating committee went to work.

Supertoxins from Fire

The report says that liquid PCB can turn into a gas in connection with fire or damage due to electrical equipment. This can produce superdangerous compounds like TCDD. It is estimated that TCDD is 230 times more powerful than curare and 500 times more than strychnine. In 1976 TCDD poisoned a 2,000-hectare area in Italy and 1981 they were forced to close down a big apartment house in the United States because of it.

According to the committee, the protection required against PCB and its reaction products must be determined as well as when premises or facilities that have been cleaned up can be put into use again.

Locations Should Be Determined

As one preliminary protective measure among others, the committee proposes that the locations of PCB transformers and condensers be determined and that all equipment containing PCB be inventoried.

Further to be investigated would be the ventilating and drainage systems for the condenser and transformer rooms and the buildings concerned. Also to be examined would be any bulges and leaks in condensers and transformers as well as the condition of electrical junctions and equipment. Condensers in poor condition should be replaced, suitable protective equipment and devices procured and key personnel trained.

According to the committee, a mere PCB leak is not usually very dangerous. Leaky equipment should, however, be removed, the site aired, the PCB absorbed with sawdust, for example, and the floor washed. The cleaning personnel will need proper protective devices.

Fire Area Should be Isolated

The report indicates that damage caused by electrical devices or PCB oil heated by fire should be immediately reported to the fire department, police, job safety district office, doctor and insurance company.

The area should be isolated. Only those who are using proper protective devices and compressed air equipment should be permitted to enter the area. Firemen, for example, should wear water-tight protective clothing for one-time use which is later handled as hazardous waste. All those who have been in the area should be kept track of, health examinations instituted and, among others, the labor health institute contacted and the taking of samples begun. Cleanup procedures may not be initiated until the PCB content is determined and the inspection or surveillance department has familiarized itself with what has to be done in accordance with the instructions of the job safety officials. Repair operations may not be undertaken until after PCB levels have been measured and the area cleaned up.

PCB condensers in risk-prone environments (in the medicine, animal feed and food industries) should be replaced. All other PCB condensers should be thoroughly inspected once a year.

The committee is of the opinion that protective devices for transformers should be inspected and that particular attention should be devoted to the fire safety of the surrounding area. If the risks are great, the transformer should be replaced.

Destruction a Problem

The handling, storing and destruction of PCB hazardous waste demand particular care. Residues of PCB oil that has leaked out can be removed from walls with a binding agent and from floors, insofar as possible, by absorbing them with methylene chloride.

Contaminated absorbents and solvents are burned at a special plant at a temperature of over 1,500 degrees. However, since we still lack a hazardous waste plant, for the time being waste products and other items containing PCB have to be stored.

In the course of the discussion it became apparent that a future hazardous waste plant will not instantaneously solve these problems either. Since a large amount of other waste products is already waiting for the plant to be built, PCB waste may have to wait for years. Besides, the plant will not "burn iron," so metals containing PCB will have to be sent abroad to be destroyed.

Other problems were revealed as well: PCB condensers cannot easily be distinguished from "nontoxic ones." If an accident occurs, there will certainly be only one plant available for the analysis of spills and waste products and we will have to wait 15 hours for the results. If, for example, several condensers should explode at the same time, we would be in a precarious situation.

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NORWAY

PARLIAMENT APPROVES EASING ENVIRONMENTAL POLLUTION LAW

Oslo ARBEIDERBLADET in Norwegian 18 Mar 83 p 9

[Text] On Thursday the lower house of the Norwegian Parliament approved a number of changes in the pollution law. Among other things, paragraph 11 of the law was eliminated, which authorized orders to firms to develop new cleansing technologies, and it will now be up to individual firms which pollute to solve the problem of staying within the limits set by the law. This change in the law was made by a vote of 45-35, with the minority consisting of the Labor Party and the Socialist Left Party.

Minister of Environmental Affairs Wenche Frogner Sellaag emphasized that the law would now be simpler and less bureaucratic, and its character as an emergency law would be reduced. The law was passed by the previous parliament, and a number of speakers from the previous minority repeated their arguments against the extended use of emergency power which was conveyed in that law.

The minister said that hereafter it would not be necessary to get permission when beginning activities which will create pollution that does not involve significant damage or inconvenience. That will make it easier for the authorities to concentrate on more severe pollution. But this will not apply to insignificant emissions which occur in large amounts, and in which the cumulative effects will be great.

"Not a dramatic step, but a step in the wrong direction," was the reaction of Inger Lise Gjorvs (Labor Party). She feared that this was giving a signal to business to relax its efforts to prevent pollution.

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